

DGMD E-598 Digital Media Design Capstone Tutorial

Final Proposal - Fall 2019

Poramate Minsiri

Project Title

Digital Marketing Automation Platform: Backend and Frontend Development

1. Project Overview

1.1 Capstone Category and Related courses

Web development

- CSCI E-12 Fundamentals of Website Development
- CSCI E-33A Web Programming with Python and JavaScript
- CSCI E-34 User Experience Engineering
- CSCI S-36 Advance User Experience Engineering
- CSCI E-79 Art and Design of Information

1.2 Project Scope

The scope of this project consists of four main aspects: lead nurturing, media placement, creative workflow, and delivery optimization. The primary focus of lead nurturing involves features like email marketing and social media marketing. Correct media placement, such as digital media, can be measured and used with tightly integrated offline media, like call centers, direct mail, and offline events. Lead scoring will help determine which prospective clients will be potential sales in a ranking function according to the customer's level of participation in the email marketing part of the lead generation.

The creative media builder consists of many user-friendly interactive preference tools. It helps to automate the workflow from the ideation process to drafting, approving, testing, then releasing. Automation tools will be a critical factor in managing campaign messages between the target audience and potential leads.

Delivery optimization will help choose the right budget, the overall duration of the campaign, media optimization, creative works as well as audience delivery. Overview information will

be easily managed via dashboard like live campaign performances, prioritization workflow, lead ranking, and potential buyers.

1.3 Project Goal

To build a web application to assist in the planning, management, and measurement of digital media data from various sources to give useful insights into management and operation teams within an organization.

1.4 Learning Goals

Front-end development will be a standard web ecosystem like HTML, CSS, and Javascript with Vue.js, Progressive JavaScript Framework. Back-end development will encompass code using Django high-level Python Web framework.

1.5 Elevator Pitch

My project is the creation of a digital marketing automation platform to help companies increase their revenue through more effective marketing campaigns so everyone from the marketing team to top executives can see and manage their digital marketing data easier.

Instead of dealing with many costly, ineffective, and time-consuming digital media platforms, this platform reduces the complexity of lots of data. It combines everything into a single view of information.

As a business owner in the computer industry for the past 20 years, I have a continued and working knowledge of the most recent and essential innovations in technology from some of the best learning institutions in the world, and I plan to use this skill set on this project as a potential digital marketing disruptor.

1.6 Target Audience

Market Automation Penetration by Segment

Segment	Micro	Small	Mid-size	Large
Annual Revenue	<\$5 Million	\$5 - \$20 Million	\$20 - \$500 Million	\$500+ Million
Clients	31,000	12,000	9,000	3,000
% of Clients	57%	22%	16%	5%
Companies	1,000,000	220,000	90,000	5,000
Penetration (%)	3%	5%	10%	60%

Source: Digital Capital Advisors, "Marketing Technology Sector Update: Marketing Automation" (2015)¹

The target audience for this platform will be digital marketers who manage marketing campaigns for clients and reporting to executives. In terms of demographics, the product will focus on the country with enough digital literacy and internet penetration to be able to use the app without much of a learning curve.

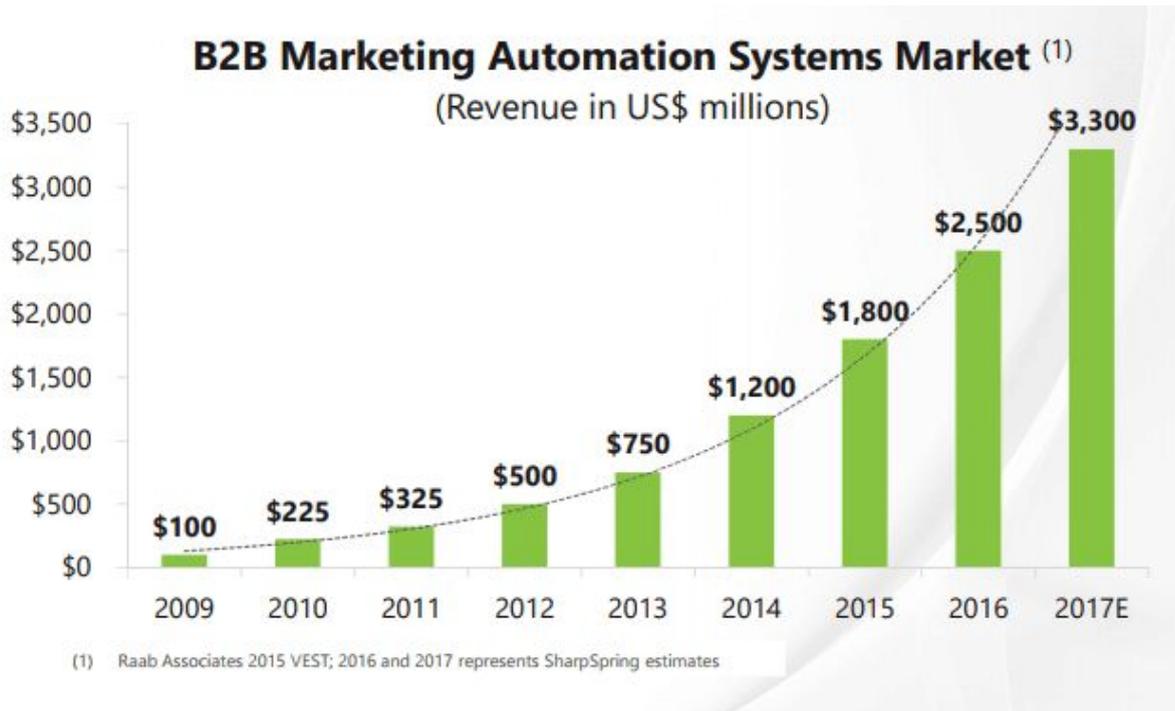
When it comes to technologies used in this project, most devices, such as smartphones or computers, are easily accessible nowadays so that most people will have no problem connecting with simple internet access to our platform.

For desires and frustrations, this platform reduces the difficulty of dealing with complex data and combines everything into a single view of information. So instead of dealing with many costly, ineffective, and time-consuming marketing processes, this platform can quickly reduce the time and costs it takes to gather all of the data to the user at the best prices.

Effectively, this marketing automation platform will help the marketing teams work faster, manage the campaign more productive, reduce costs. Besides, while improving marketing efficiency, this platform will reduce the number of skilled talent that will often be needed to handle most of the situations during the normal active stage. So with lower costs and improved efficiency, our overall goal of increased profits can be achieved quite effectively.

¹ Digital Capital Advisors, "Marketing Technology Sector Update: Marketing Automation" (2015) <https://www.autopilotHQ.com/blog/marketing-automation-statistics/>

There are a number of statistics on digital marketing over the past years. The marketing automation market is a “long tail” distribution of vendors; a few 1+ Billion USD giants, 10 to 25 leaders with 100 Million USD or more in revenue, and then the rest of smaller firms from 1–3 person micro-SaaS companies to substantial firms with millions in revenue. ²



B2B Marketing Automation Systems Market is a \$3.3 Billion market in 2017, growing 30%+ annually, SharpSpring “Investor Presentation Jan 2018.

On average, 51% of companies are currently using Marketing automation. With more than half of B2B companies (58%) plan to adopt the technology. ³

² The Landscape of Marketing Automation in 2019 by Samuel Schmitt, Dec 9th 2018.
<https://medium.com/@samuelschmitt/the-landscape-of-marketing-automation-in-2019-5339e57a9b3d>

³ The Ultimate Marketing Automation stats. (2019)
<https://www.emailmonday.com/marketing-automation-statistics-overview/>

User Personas

	<p>“This industry is moving too fast; it’s tough to keep up with it all.”</p> <ul style="list-style-type: none">● keep updating the marketing campaign statistics● stay in touch using chat with her clients and her boss● explore others update and feedback from the online world, especially from the competitors <p><i>Pet peeve</i> when she gets too much pressure from her boss and clients with a limited amount of time to come up with a solution.</p> <p><i>Other people say</i> “Lucia is always persistent, especially under a heavy workload,” Marcus.</p> <p>“I don’t know how she deals with all these complex problems that always happens,” Mark J.</p> <p><i>Business domain information</i> After her graduation in Business Admin, Lucia Applies for a job at an exporting company in Madrid, where she has a chance to travel a lot for both personal and business reasons. She had to learn a lot about digital marketing technology because there is a lot to keep up with in her career.</p>
<p>Lucia T. Digital Marketer 26 Female Bachelor of Business Administration</p> <p>Devices VIVO V9 andriod phone , Macbook Pro 15”</p>	

Lucia T., Digital Marketer, In her own words

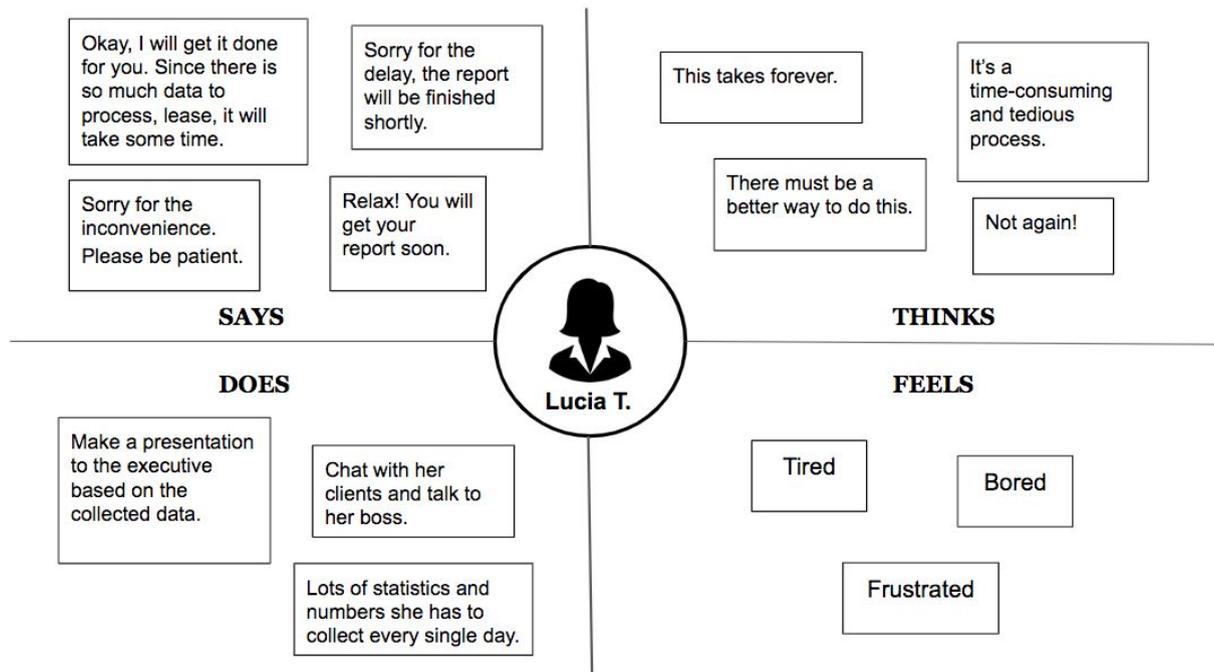
Every day I have to deal with statistical numbers from the three leading platforms our company operates with. As a digital marketer, I receive the requirements, such as campaign name, message, active period, and expected results from our various clients. Then, I need to create the pertinent marketing campaigns to help our clients achieve their campaign goals within a specific amount of budget and time. From maximizing “video views” of the video commercial to getting more leads and increasing sales conversions, my job consists of many functions and goals I need to accomplish under deadline pressure.

Another essential function I have as a digital marketer is lead nurturing. This is a very delicate process, from finding potential clients, or leads, and converting them into actual customers who make a purchase. This involves understanding what the lead is interested in

and responding to those needs with the correct details of the campaign. I always try to help my leads find their way to the best sales agent, and or invitation to our showroom, to help them decide for their purchase.

The creative workflow between the clients and myself is a process that starts from the main idea, to captivate, as marketing pieces, like videos, stories, and photos, which need to be adjusted and maintained from conception until completion. As a digital marketer, I have had to learn this process myself through experience. There is no real way to learn this type of process except through the experience. It is also very time-consuming.

Finally, I have to make sure that I can deliver the campaign to the right target customers, place the campaigns on the right online platforms, at the right time, under the optimized cost. This all can be very stressful. I get a lot of pressure from all sides of the campaign from my manager to sales reps and clients. But I do my best to keep up with it all.





Susanne J.
Marketing Director
36 | Female | MBA.

Devices

Apple watch, Huawei p20+,
Macbook Air 13”

“It’s difficult to find the right talent in this high paced evolving industry.”

- dealing with the budget for the company profitability
- a complicated requirement from her customers
- hard to find work-life balance in recent years

Pet peeve

Can’t stand the people in the meeting room, wasting my time.

Other people say

“Susanne is the most dependable of my staff. I don’t know what I would do without her,” Marcus E.

“She must have a tough job, but I look up to her because she always helps me with new ideas all the time,” Lucia T.

Business domain information

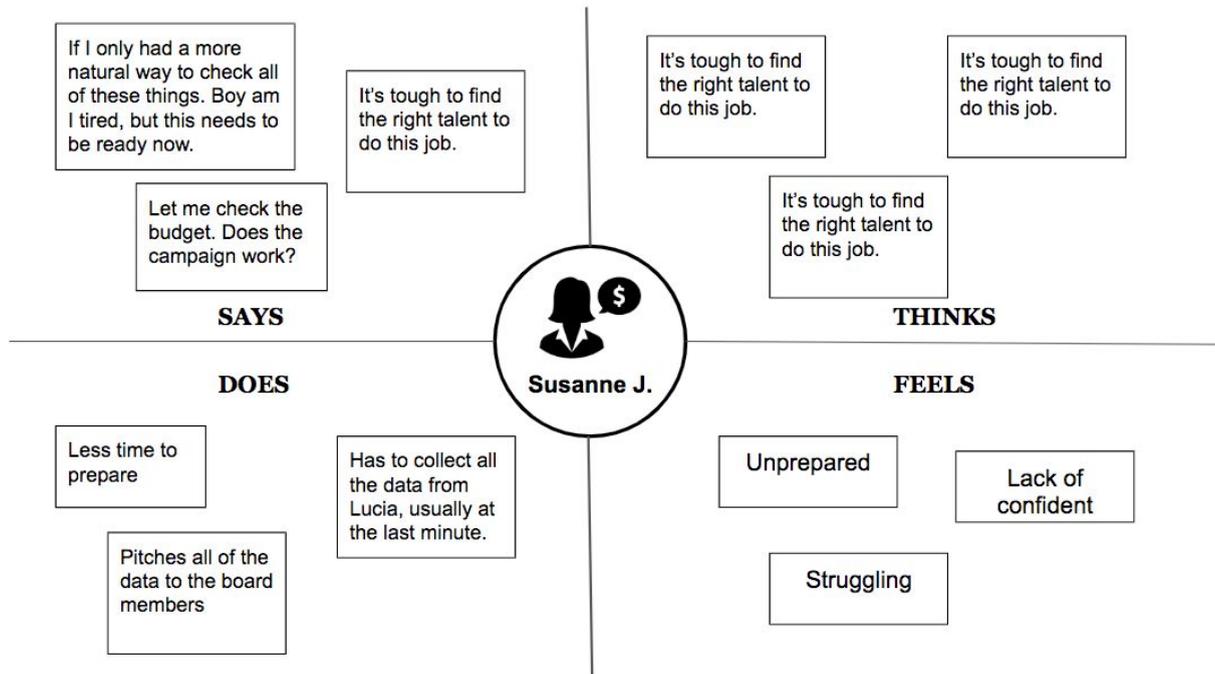
Susanne had to develop her skills in the changing market and spend lots of time explaining the situation to upper management, all while having to deal with more complicated requirements from her clients over time. Now she is looking for new solutions and tools to make her job more efficient.

Susan J., Marketing Director, In her own words

One of my primary functions is approving and revising the marketing campaigns in the workflow. Since there are so many aspects to deal with when launching a marketing campaign, I spend a lot of time assuring client’s about campaign performance — one of my main goals is to improve the overall customer experience from start to finish. Planning and budgeting is the next most significant aspect of my role here. We have to make the customer happy to make money. And, if we’re not making money, we’re in trouble! It’s required to know if a video is working on the media platform as soon as possible. If the commercial video is a bust, we have to scrap it fast.

Often, I have to pressure my staff to get the most recent results again and again. This is very

time consuming for everyone, but it can save a lot of money for the client if something goes wrong in the marketing campaign. With marketing results, I need to delegate other aspects of the projects to the right team member, with the right ability to solve the problem that may occur, in that specific area, as soon as possible. With all of that, I am the one that must pull together, develop, and deliver up to date summaries and marketing reports to the directors across the board, as well as the company's clients. Because the compiling of these data are so time-intensive, my reports are often last minute, which makes me very unprepared all the time. If I could find highly-skilled talent in this marketing analysis area, I would feel much more confident in our results.





Markus E.
CEO.
52 | Male | MBA .

Devices

Apple watch 2, iPhone 7,
Windows PC & notebook

“My biggest concern is to sustain the future growth of the company as it changes very fast.”

- I need to know all the information to make decisions on time.
- I feel my age impedes my ability to keep up with the latest technologies.
- Since I’m so busy, I need things to be summarized and easy to understand.

Pet peeve

Not being informed in the correct way in the correct amount of time.

Other people say

“Markus is often way too busy to put all the latest tech together sometimes. That's why I have to work very closely with him to get the correct information to him on time,” Susanne J.

“His time is valuable, so get straight to the point,” Lucia T.

Business domain information

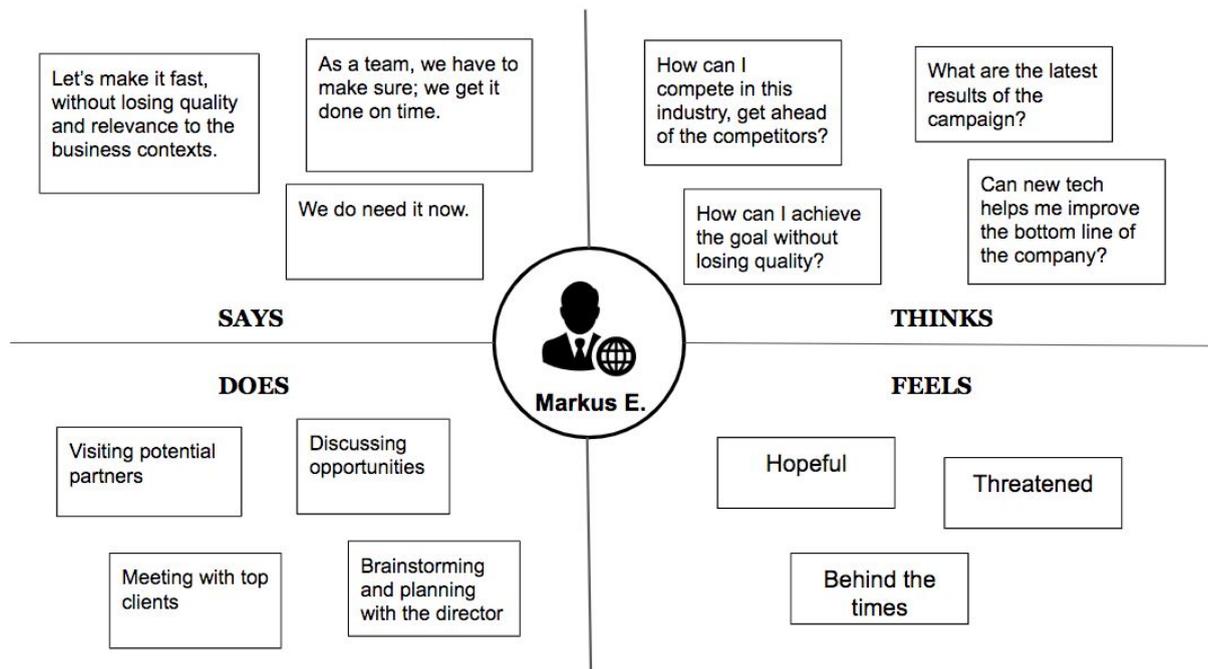
Marcus is in important meetings almost all the time to deal with potential partners and top clients. He also had to plan and make company policy for the entire company to follow. That's why the correct and punctual information is crucial for him.

Markus E., CEO., In his own words

As the CEO, everything goes through me. From reporting the company performance to the shareholders and impressing potential business partners, to assuring top clients to stay with the company and not switch to the competitors. One of my main goals as chief is to motivate people to work at their best and strive for excellence. Summarized, accurate, and updated information is crucial to me. Likewise, one of my main pain points I have is dealing with the pace at which the technology has developed in this industry within the last few years. There are many things about the most recent changes, with marketing technology, that I can't deal

with under my time constraints. So I feel a little threatened and behind the times because of my age. I like to be able to manage all of my statistics and data results directly on my phone. That makes it convenient for me to get the information I need is the easiest way possible. And I feel hopeful that I too can keep up with the rest of my company during the changing technological times.

As a team, we have to make sure; we get it done on time. But, we do need it now. So let's make it fast, without losing quality and relevance to the business contexts. I have to be sure to achieve the goal without losing quality. I often think about the latest results of the campaign and what's going on with everyone. I'm always looking for ways I can compete in this industry, and get ahead of the competitors. And I really would like to see new technology to help me improve the bottom line of the company.



1.7 Metrics, Rubric Table & User Survey

User Survey Questions

<p>To what extent did this platform help you overall? Was it easy to use?</p> <ol style="list-style-type: none"> 1. It was really hard to use 2. It was hard to use 3. No improvement 4. It was easy to use 5. It was effortless to use 	<p>Has this automation platform helped you nurture your leads faster?</p> <ol style="list-style-type: none"> 1. It slowed it down a lot 2. It slowed it down a little 3. No improvement 4. It made it smoother 5. It made it much smoother
<p>Was it better than before overall? Was it faster? Did it reduce your costs? Did it help bring in more revenue?</p> <ol style="list-style-type: none"> 1. Worst 2. Worse 3. No improvement 4. Better 5. A lot better 	<p>Has the platform helped smooth out the workflow process?</p> <ol style="list-style-type: none"> 1. It slowed it down a lot 2. It slowed it down a little 3. No improvement 4. It made it smoother 5. It made it much smoother
<p>Were you able to find more insightful attributes about your target customer than before?</p> <ol style="list-style-type: none"> 1. Significantly Harder to find more insightful attributes 2. Harder to find more insightful attributes 3. No improvement 4. It helped 5. It significantly helped 	<p>Has the platform helped reduced unnecessary mistakes during the workflow process?</p> <ol style="list-style-type: none"> 1. It significantly gained more unnecessary mistakes 2. It gained more unnecessary mistakes 3. No improvement 4. It helped reduce unnecessary mistakes 5. It significantly reduced unnecessary mistakes
<p>Do you feel the platform makes it easier to manage your target customer?</p> <ol style="list-style-type: none"> 1. It was a lot harder 2. It was hard to manage 3. No improvement 4. It was easier to manage 5. It was effortless to manage 	<p>Were you able to receive complete campaign, executive, or summary reports faster?</p> <ol style="list-style-type: none"> 1. It slowed it down a lot 2. It slowed it down a little 3. No improvement 4. It made it faster 5. It made it much faster

<p>Has the platform helped you nurture your leads at every stage?</p> <ol style="list-style-type: none">1. It didn't help at all2. Somewhat helpful3. No improvement4. It helped5. It helped a lot	<p>Were you able to create the report with less frustration?</p> <ol style="list-style-type: none">1. It was a lot harder2. It was hard to create3. No improvement4. It was easier to create5. It was effortless to create
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Assessment Rubric

Criteria	Unsatisfied	Not yet	OK	Great	Mastery
Better overall experience	Far below average very hard to use, Work slower than expected, Didn't help reduce costs, Didn't help generate more revenue.	Below average slightly difficult to use. Slower than needed. A little higher costs. Lower than expected revenue.	Average usability, Average speed, Some improved revenue, Costs were a little better.	Above-average usability, A high level of improved speeds, Substantial. reduced costs, Noticeable increase in revenue.	Exceptionally high usability, Effortless to use, Work a lot faster, Dramatically reduced cost of operation, Help increase revenue significantly.
Achieve designated Target customer	Not insightful at all, Very hard to manage.	Below average insightfulness, A little difficult to manage.	A little insightful, Easy to manage.	Very insightful, Very easy to manage.	Exceptionally insightful, Extremely easy to manage.
Effective Lead nurturing	Did not help nurture leads at any stage, It was very slow.	Did not very helpful at nurturing leads at any stage, It was a little slow.	A little helpful at nurturing leads at some stages, It was fast.	Helped nurture leads at most stages It was swift.	Was very helpful at nurturing leads at every stage, It was exceptionally fast.
Enhance Creative Workflow	Slower workflow process, It did not help reduce mistakes at all.	No improved workflow, It did not help reduce mistakes.	A little improvement with workflow, Did help reduce mistakes	Very helpful smoothing out workflow, It was beneficial at reducing mistakes.	Dramatically helped smooth out the workflow process, It helps reduce unnecessary mistakes during the workflow process
Effective Report Creation	Did not create relevant reports on time Very slow at creating reports, Very frustrating	Did create some relevant reports Was a little slow at creating reports A little frustrating.	Did create relevant reports. It was okay at creating reports. It was quite fast at creating relevant reports. It was not frustrating.	It was able to create great reports. It was very fast at creating relevant reports. It was quite satisfying.	Received complete campaign, executive or summary reports. incredibly faster. Very satisfying.

1.9 Life of the project beyond capstone

This project will be used to start testing target customers by the second fiscal quarter of 2020. The first five test corporations will be used to determine what adjustments and enhancements may be needed to ensure optimum performance and meet the needs of target customers in the future. Three major corporations have shown interest in this beta testing period. And there are two other potential corporations in line to join.

Because this start-up is an innovative software company, it fits the requirements to apply for government subsidies from the Thailand Government. The government has set up incentive policies to attract and promote investment in areas including R&D, biotechnology, and digital technology. These incentives have been included in two laws passed during the last couple of years by the Thailand legislation.

The initial start-up capital can come from a few different sources. The first source, who is already interested, will come from a start-up fund managed by a private bank in Thailand. I have introduced the main concepts of this project to the executives of the bank, and they are anticipating the business proposal with a minimum viable product (MVP). The initial funding should be established for the start date by mid-2020.

Another meaningful connection that will be needed to ensure project growth is to establish a close working relationship with Google and Facebook. It is done by joining the local developer gatherings that are held a couple of times a year in Thailand. After the company is established and operating, the primary goal will be to become official marketing partners with Google and Facebook.

2. Competitor review

Hubspot Marketing Hub

Description: HubSpot is a social media marketing service aimed at providing analytics and SEO tools for inbound marketing. Created by Brian and Dharmesh in 2004, Hubspot was devised as a way to satisfy a noticeable shift in the way consumers started buying and shopping online at the time. The main concept of the company to empower companies to stop pushing customers with outbound marketing, help bring new methods for business to action and raise awareness to their customers of the new opportunities found with inbound marketing.

Of the three main branches in Hubspot, the Marketing Hub consists of three main features, lead generation, marketing automation, and analytics. Pricing for the Hubspot basic version starts at \$50 a month. And professional version offers more features like an automatic sales processing function as well as personalized outreach, which allows for better data organization.

Hubspot earned more than \$513 Million in 2018. And the Enterprise version is \$1,200 a month with more customized features.

Pros: With more than 64,500 customers in over 100 countries, HubSpot is the most popular marketing service in the industry, and its online tools are its most effective inbound marketing feature. Its integration features can seamlessly work together with other HubSpot modules and functions.

Cons: HubSpot is rather high priced for such a small business.

ActiveCampaign

Description: ActiveCampaign is an email marketing and sales automation, CRM software platform for small-to-mid-sized businesses, and provides cloud-based marketing, sales automation software, lead scoring, and web analytics. ActiveCampaign The software uses customer data to create customized messaging and has over 60,000 clients with \$60 million in recurring revenue.

Pros: ActiveCampaign is affordable, easy to use with an excellent user interface.

Very easy to follow and use and has a wide range of visual email newsletters.

Cons: Its automation flexibility is quite limited.

GetResponse

Description: GetResponse is a Polish-based company with over 1 billion subscribers a month, and 350,000 customers in 182 countries. They specialize in high-impact newsletters, video emails, and follow-up campaign assistance. GetResponse has marketing automation, responsive email design, hundreds of ready-to-use email templates, landing page creator, and many statistical analysis tools. Differentiating features include marketing automation, landing pages, image editor, responsive design, forms, webinars, CRM, and perfect timing.

Pros: GetResponse is easy to use and is a good value for the price of its service. With over 220 templates and list automation features, it is more powerful than most marketing automation tools. Its auto funnel feature makes it easy to create a strong marketing funnel. Reporting and comprehensive split testing features are robust.

Cons: GetResponse does not offer a free plan, Drag and drop interface feels a little bit clunky and need some improvement, Has some issue with Email Deliverability

Competitor Comparison Table

Criteria	Active Campaign	Hubspot Marketing	GetResponse	GetKeepGrow
Basic marketing automation functions	Included	Included	Included	Included
Lead Nurturing	Included	Included	Included	Included
E-mail marketing/ List building tools	Included	Included	Included	Included
Drip Campaign	Included	Included	Included	Included
Visual Editor	Included	Included	Included	Advanced*
Dashboard	Included	Included	Included	Advanced*
Social Media Campaign	In Beta	N/A	N/A	Included
Task management	N/A	Included	N/A	Included
Landing page generation	Included	Included	Included	Advanced*
Analytics	Included	Included	Included	Advanced*

GetKeepGrow Advanced Features

Visual Editor: Web-based drag and drop user interface with WYSIWYG editor

Dashboard: Customizable canvas with widget gallery to choose from

Landing page generation: An easy to use webpage builder with template gallery

Analytics: Managable tool that can analyze from multiple data sources

Glossary

Lead Nurturing: the process of continuously contact the potential buyer to update information and to improve the knowledge of the customer throughout the buying process. All lead information tends to change or become obsolete as time passes. To keep the information up to date, the Lead Manager needs to continuously contact the leads' contact to update the information, to deepen the information in a are often grouped into segments to the level of qualification present within an organization. *(Wikipedia)*

Drip Campaign: Drip marketing is a communication strategy that sends, or "drips," a pre-written set of messages to customers or prospects over time. These messages often take the form of email marketing, although other media can also be used. Drip marketing is distinct from other database marketing in two ways: (1) the timing of the messages follow a pre-determined course; (2) the messages are dripped in a series applicable to a specific behavior or status of the recipient. It is also typically automated. *(Wikipedia)*

Visual Editor: Computer software for editing text files using a textual or graphical user interface which displays the content (text) in an easy to look at and good view; that is, it displays a portion of the opened file and updates it in real time. By definition, all visual editors require a re-fresh-able display device and all editors with a GUI are visual. Editors that are running through a command-line interpreter, however, may or may not be. *(Wikipedia)*

Landing page: In online marketing, a landing page, sometimes known as a "lead capture page", "static page", or a "destination page", is a single web page that appears in response to clicking on a search engine optimized search result, marketing promotion, marketing email, or an online advertisement.[1] The landing page will usually display directed sales copy that is a logical extension of the advertisement, search result or link. Landing pages are used for lead generation. The actions that a visitor takes on a landing page is what determines an advertiser's conversion rate. *(Wikipedia)*

3. Technology Requirements / Resources / Material

HTML, CSS, Javascript, Vue.js

Description:

HTML, CSS, Javascript with Vue.js Progressive JavaScript Framework are a part of the standard web development ecosystem.

Related courses or professional experience:

- CSCI E-12 Website Development
- CSCI E-34 User Experience Engineering
- CSCI S-36 Advanced User Experience Engineering

Alternative technologies, technologies used by competitors:

I evaluated the top three popular web frameworks available, React, Angular, and Vue.JS, and found Vue.JS to be much easier to implement compared to others.

Reason for selecting this technology vs. its alternatives:

Since my project is a web application without having to deal with a native mobile app, the front-end site of this project, will be implemented with Vue.js as a Javascript framework.

How it will be used in your project:

It will be used in the front-end web development of my project. I have more than 20 years of experience in web building, so working with HTML, CSS, and Javascript is what I have done for a living my entire career.

Python with Django Framework

Description

Django is a high-level Python Web framework that encourages rapid development with less code.

Related courses or professional experience:

Alternative technologies, technologies used by competitors:

Although I have become quite familiar with the LAMP stack over the last couple of decades, I found it has both development and performance issues in using Linux/Apache/MySQL/PHP as a back-end development framework.

Reason for selecting this technology vs. its alternatives:

I'm seeking out alternative ways of developing my backend part. Now, after evaluating with both MEAN stack (MongoDB, ExpressJS, Angular and NodeJS) and Python-Django technology stack, I have decided to go with the python one. Even though I'm not very experienced with stack coding in Python, I found that the Django framework can deliver an impressive outcome in terms of functionality and performance.

How it will be used in your project:

It will be used in the back-end development of my project. Furthermore, I will host my project using the Digital ocean cloud servers, and my back-end database will be PostgreSQL hosted by the Heroku cloud application platform.

d3 Javascript Library

Description

This project consists of the intuitive user interface dashboard, which shows highly visual information to the users. To visualize all the data, I have to incorporate elements from the d3 javascript library, which has powerful visualization components.

Related courses or professional experience:

CSCI E-79 The Art and Design of Information

Alternative technologies, technologies used by competitors:

It might be easier if I choose a ready-made javascript module like Chart.js. But d3 gives me more fundamental powerful visualization modules to explore.

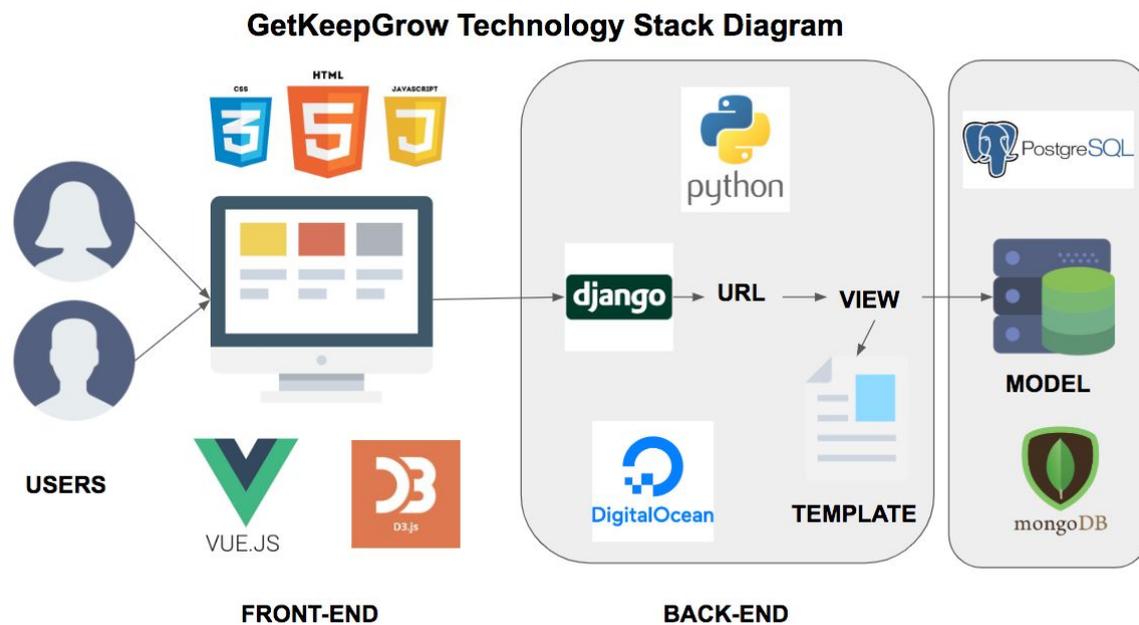
Reason for selecting this technology vs. its alternatives:

Interactive visualization with a variety of modules in d3 can offer remarkable user experience to everyone from executives, officers, and their clients.

How it will be used in your project:

The visualization aspects can impress everyone involved by the ease of use in data manipulation and the beautiful data representation found within its user interface.

4. Developer Manual / Product Design / Methods

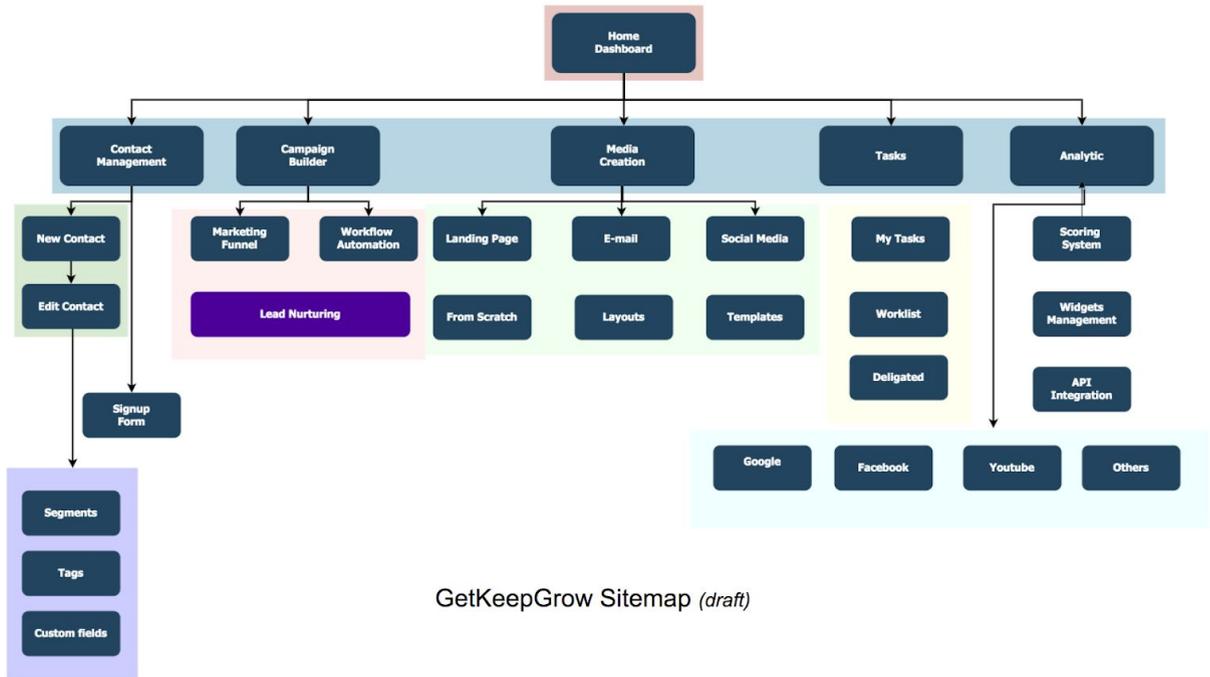


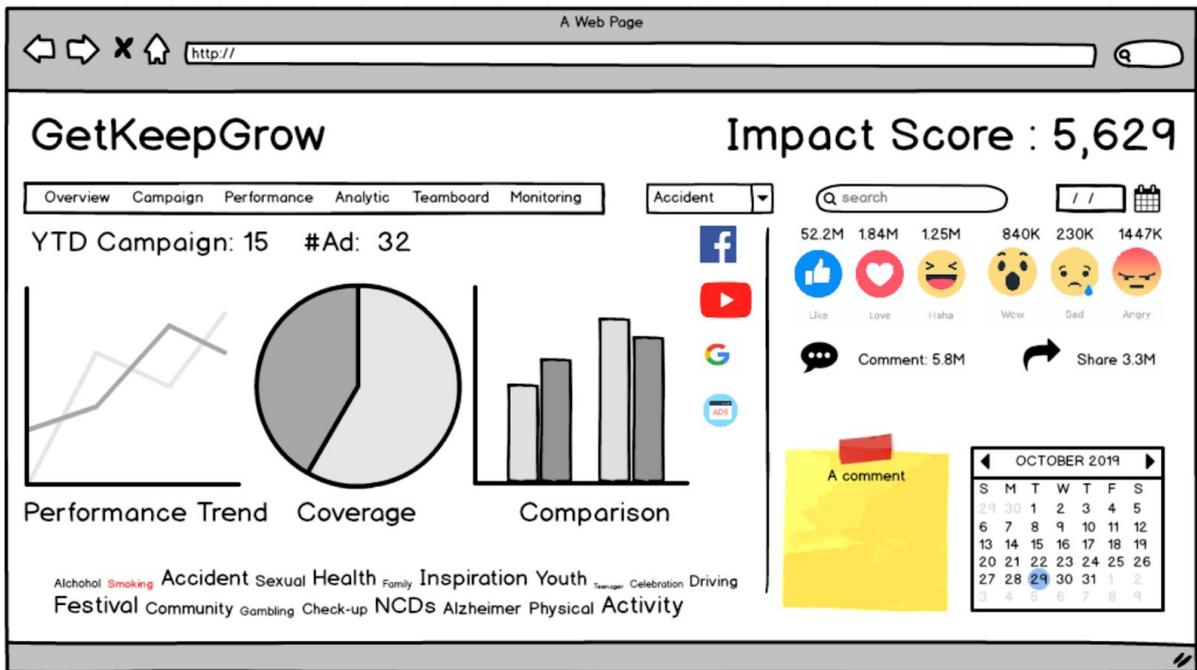
GetKeepGrow technology stack diagram is a visual depiction of the high-level architecture this project encompasses. Since this is a web application, users can access the service from any desktop computer with an updated web browser. The front-end interface will be done using HTML5, CSS3, and Javascript. Vue.JS javascript framework will be implemented for an improved interactive interface.

Besides, advanced features in Vue.js are required for complex applications such as routing, state management, and build tooling. Likewise, to produce dynamic and interactive visualization, such as information dodgeball, d3.js will be used for the visualization modules.

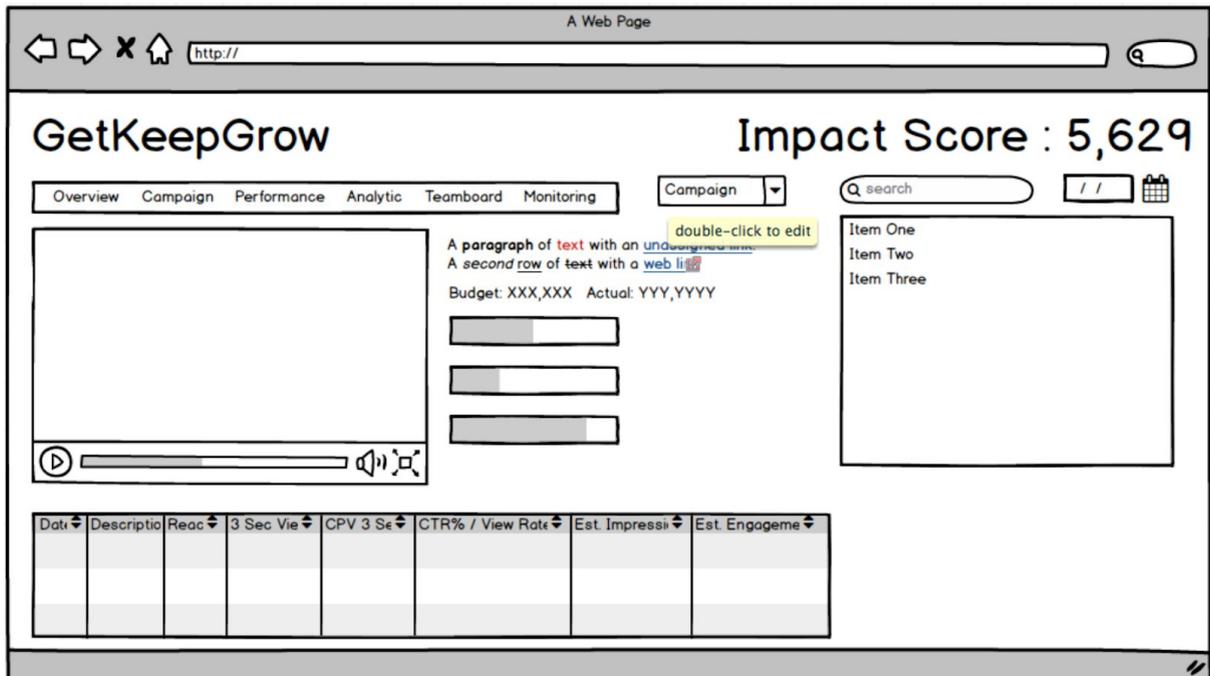
The back-end section will be connected to the front-end using Django as the web framework. Additionally, all the code will be in Python using Django's architecture Model-View-Template (MVT) depicted in the technology stack diagram above. For the model part, on the right side of the diagram, MongoDB or PostgreSQL is part of the database for this model. Finally, this project will be hosted by DigitalOcean cloud servers. I choose DigitalOcean because its deployability and scalability infrastructure is easy to use.

For the initial mockup of the project, I start by applying real-world data then visualize it using Google sheet in combination with the Google Data studio. Please see the attachment.

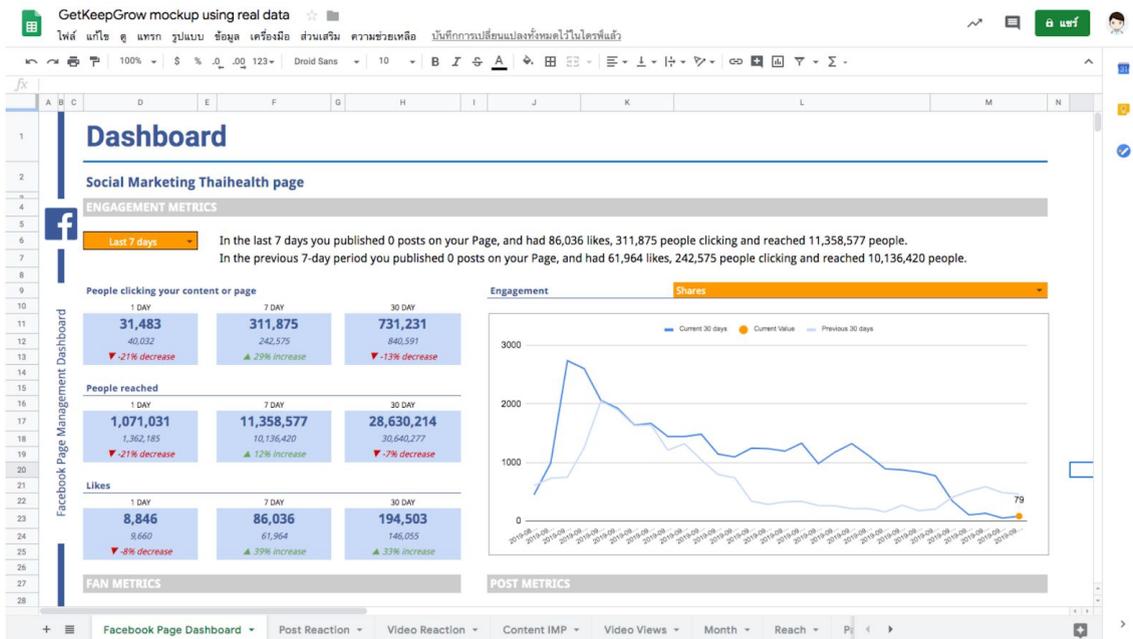




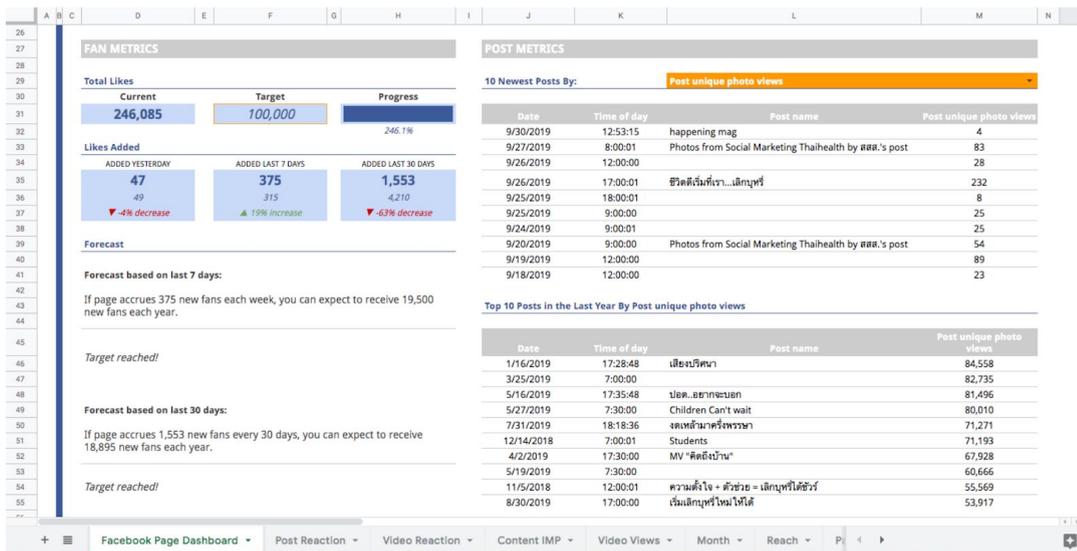
Summary information will be easily visualized via the intuitive user interface dashboard like live campaign performances, prioritization workflow, lead ranking, and potential buyers.



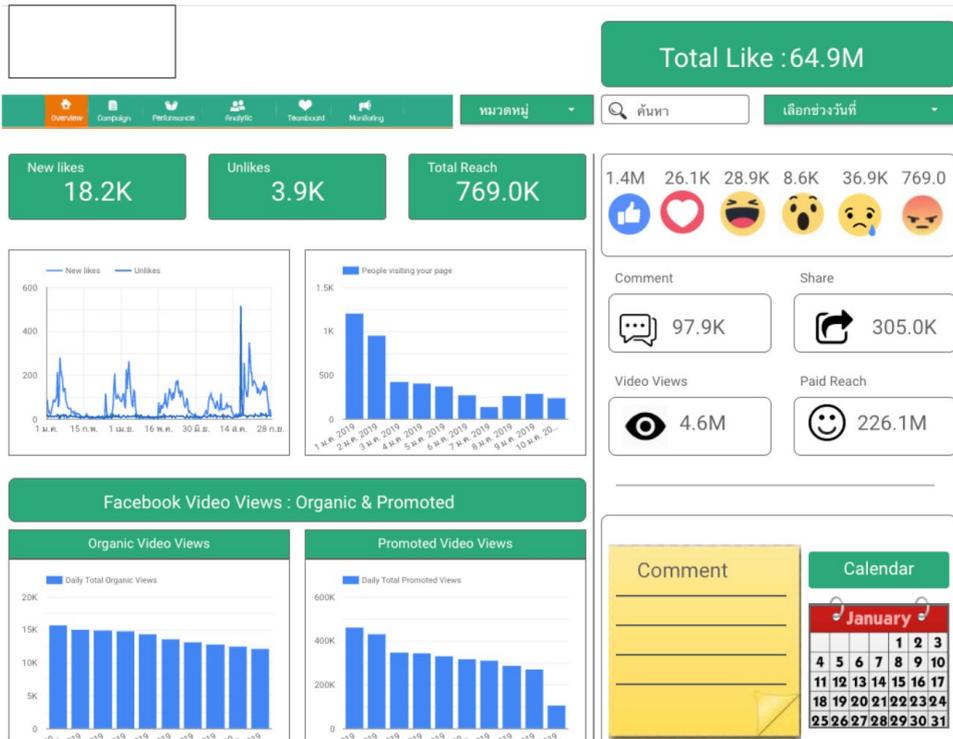
Digital marketers can easily handle each campaign using consolidated campaign information.



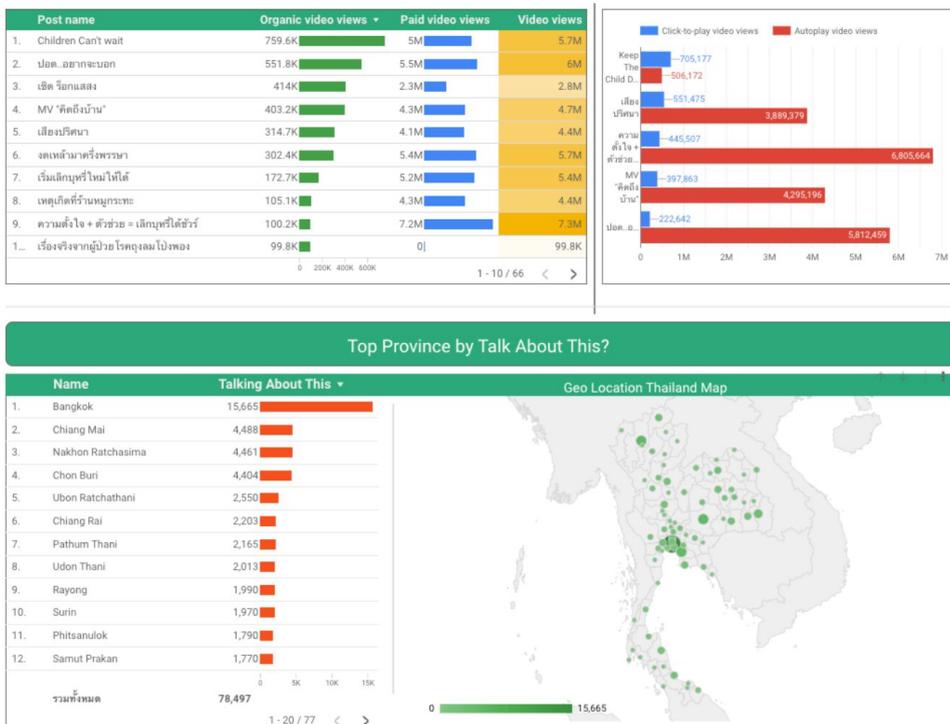
Real-world social media data (e.g., Facebook) was exported and experimented for creating a viable proof of concept.



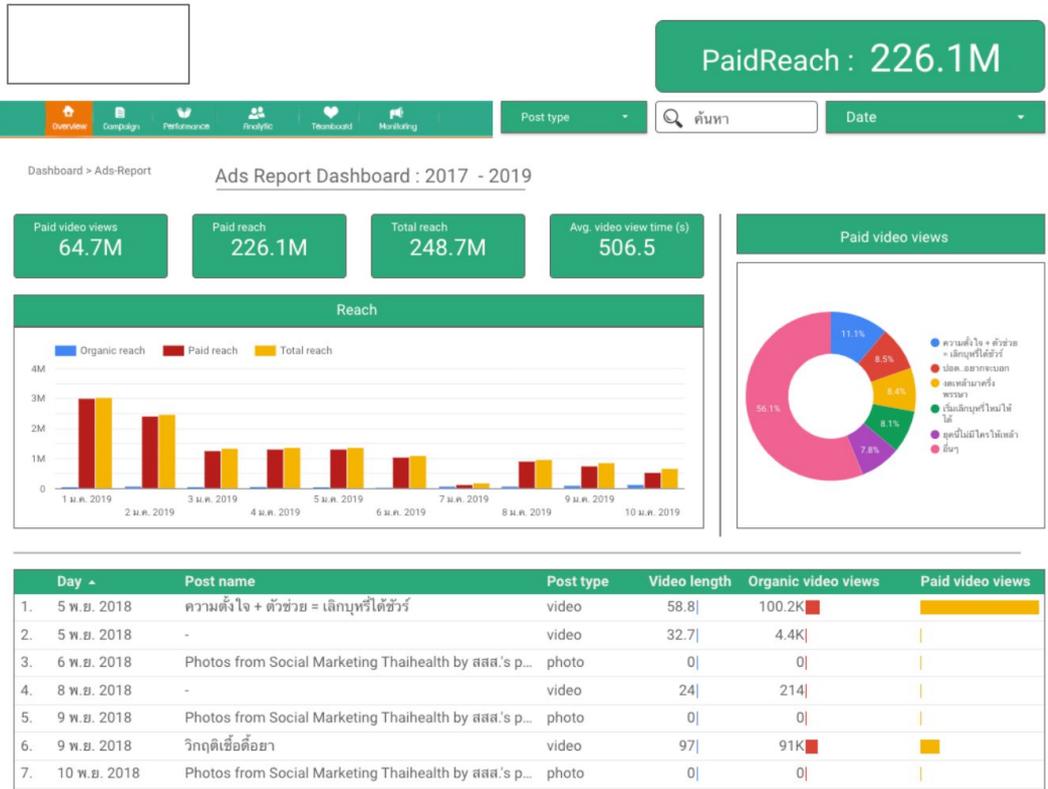
The actual project will be integrated with each social media platform using their respective API (e.g., Facebook Marketing API, Google Ad, and Youtube API).



The interactive mockups have been created using Google Data Studio so users can comment on the exact visualization before the actual coding process.

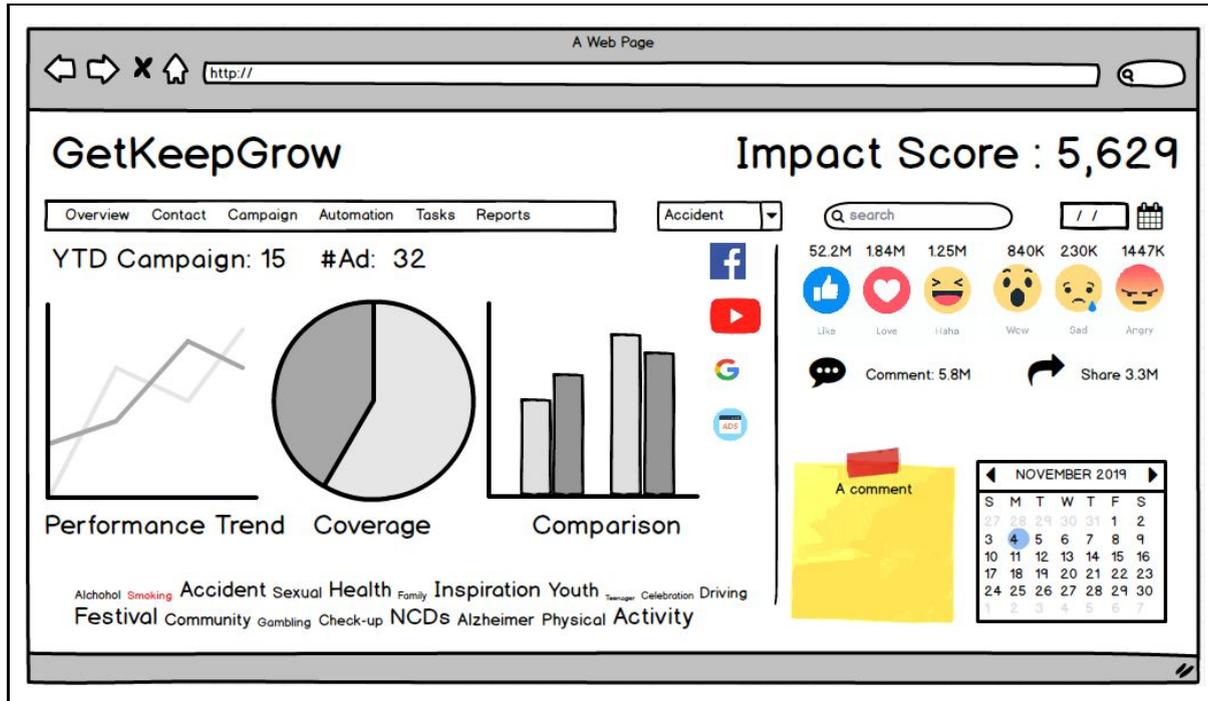


Google Data Studio provides lots of information widgets to choose and test the visualization idea, such as charts, tables, and maps.



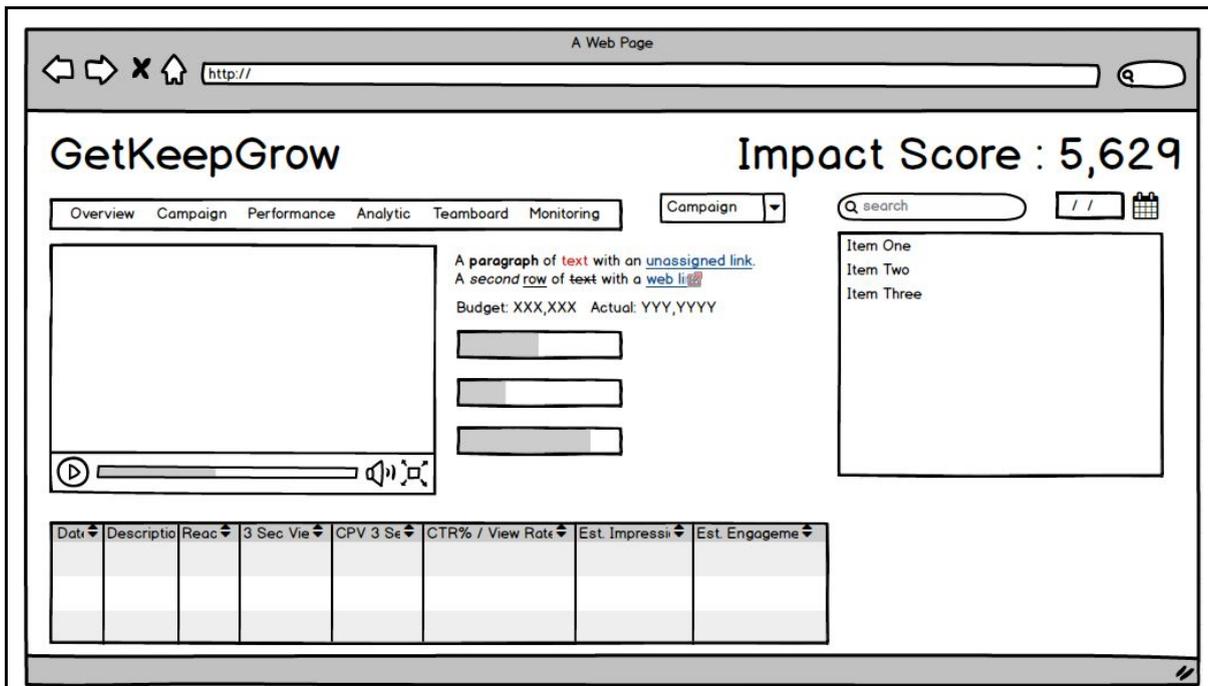
Information Dashboard interactive mockups have been prepared in courtesy of my local client.

5. User Manual / User Journey



Step 1: Login

The user is required to log in to the front page. Since this service is for internal use for each company, each user must be assigned and granted access by the company policy before they can use it.



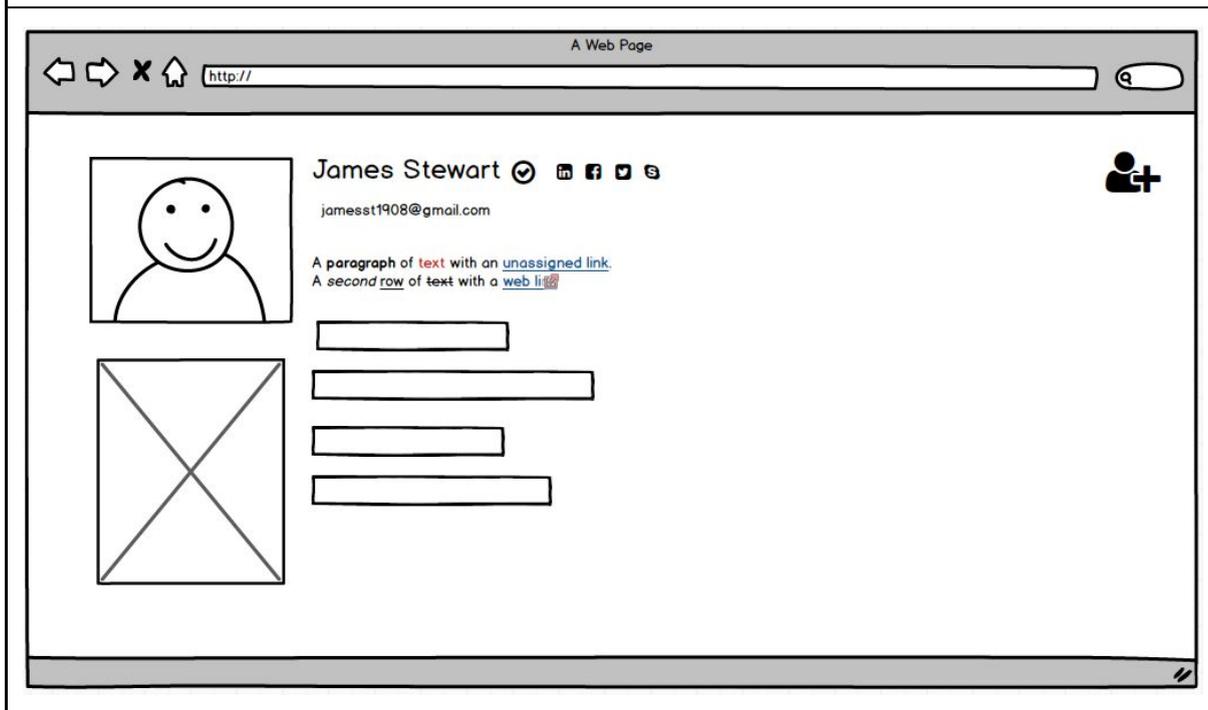
Step 2: Dashboard exploration

After access granted, the dashboard appears

The impact score is shown on the top left corner so that the marketer can notice the overall performance at a glance.

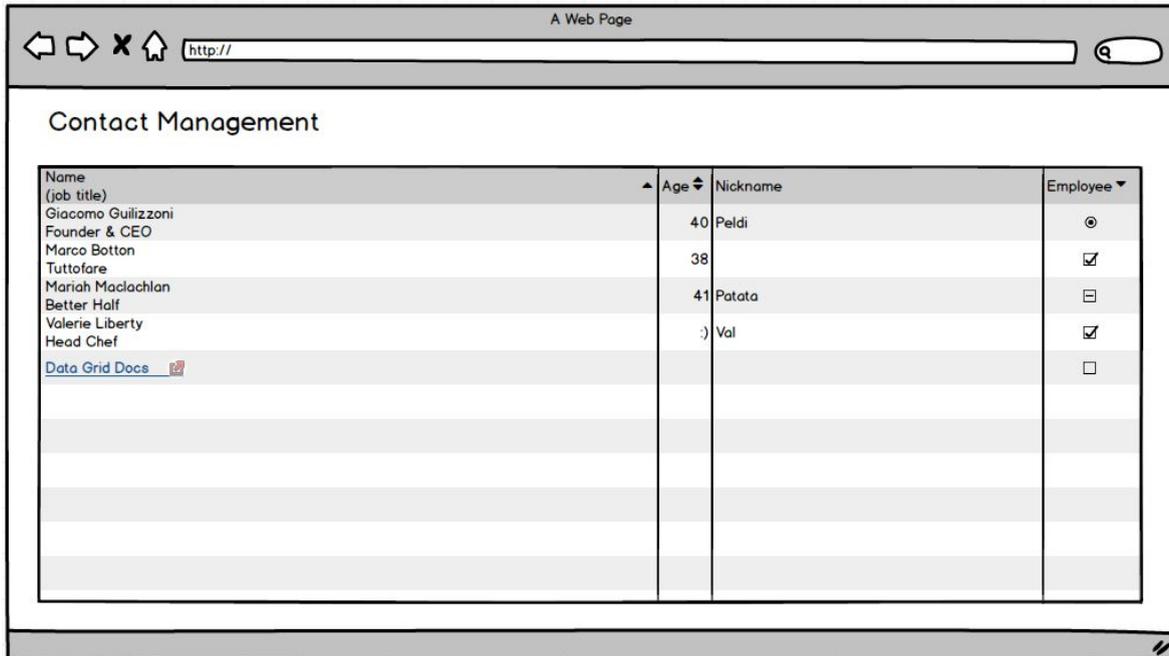
The global navigation menu is below the logo, including the filter bar to narrow the information down.

The essential information widgets are displayed throughout the dashboard.



Step 3: Add contact

The user clicks the menu “Contact” then “Add contact,” the blank form appears. After filling the contact form, then click the submit button. Users can add multiple contacts manually this way.



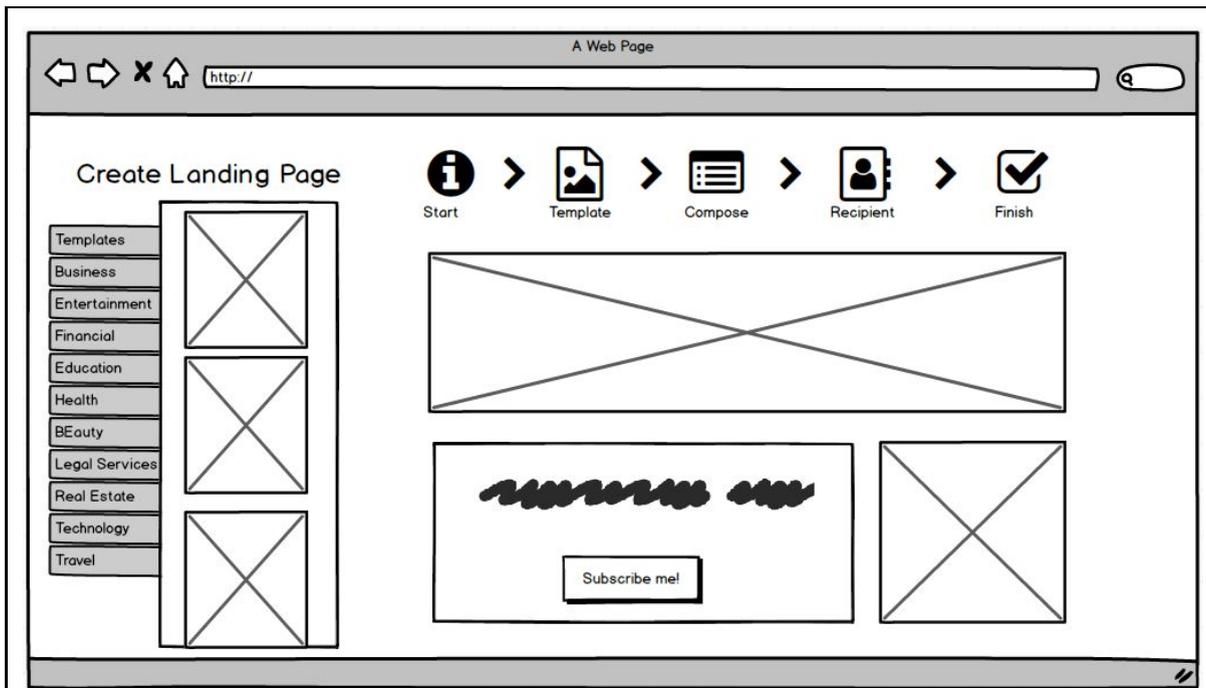
The screenshot shows a web browser window titled "A Web Page" with a search bar containing "http://". Below the browser is a page titled "Contact Management" featuring a table with the following data:

Name (job title)	Age	Nickname	Employee
Giacomo Guilizzoni Founder & CEO	40	Peldi	<input type="radio"/>
Marco Botton Tuttofare	38		<input checked="" type="checkbox"/>
Mariah Maclachlan Better Half	41	Patata	<input type="checkbox"/>
Valerie Liberty Head Chef	;))	Val	<input checked="" type="checkbox"/>
Data Grid Docs			<input type="checkbox"/>

Step 4: Contact Management

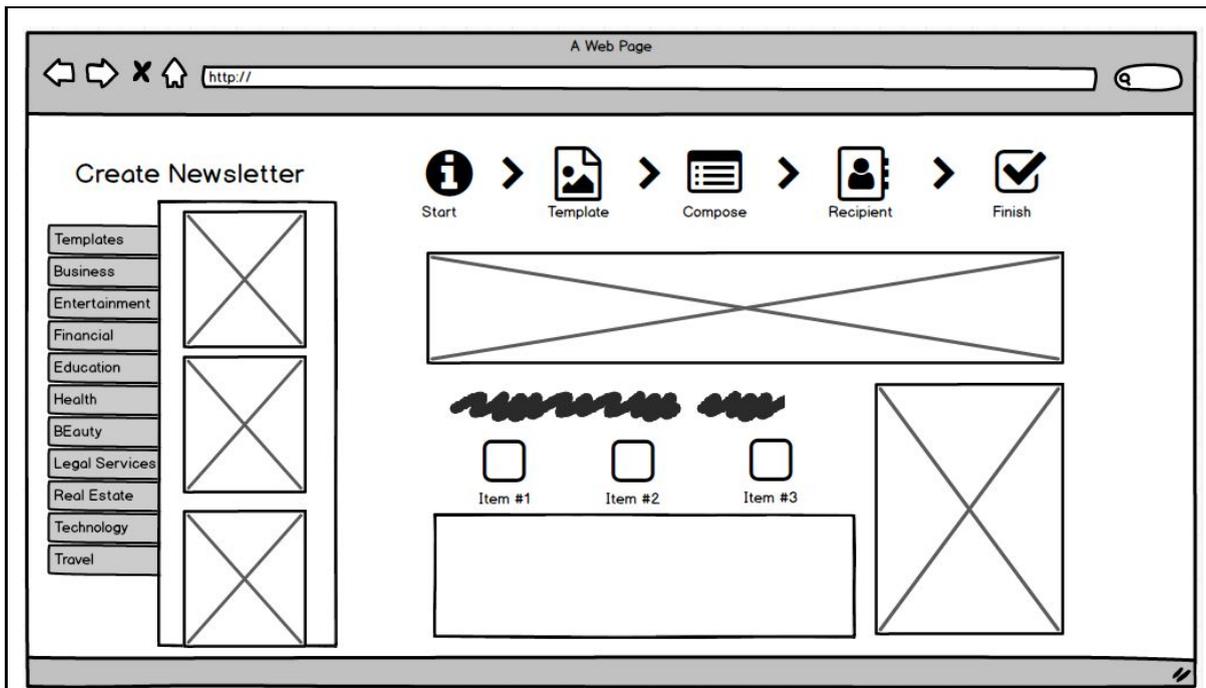
After multiple contacts added, the user might want to organize them by viewing in the contact list view then “Edit contact.” To arrange contact for further reference, The user will then process to add “segments” and “tag” or even create more “custom fields” for each contact.

Moreover, the user clicks at the “Contact” menu then “Create a contact list.” Enter the list name then add contacts into the list. The user can quickly add a contact by search from criteria such as age, sex, etc. It would be much more convenient if contacts were organized using segment and tag.



Step 5: Create Landing page

Many effective marketing campaigns required a landing page to show more information about the offering. The user clicks the “Campaign” menu then “Create a Landing page.” The simple form appears, then enter the name of this landing page, create Click next, then choose to create a landing page from scratch, choose the layout, or choose the predefined template from the template gallery. Edit and add contents then preview to make sure it looks great on mobile and desktop. The User can choose to publish the landing page later or publish right away so the system will generate a landing page URL for further use.

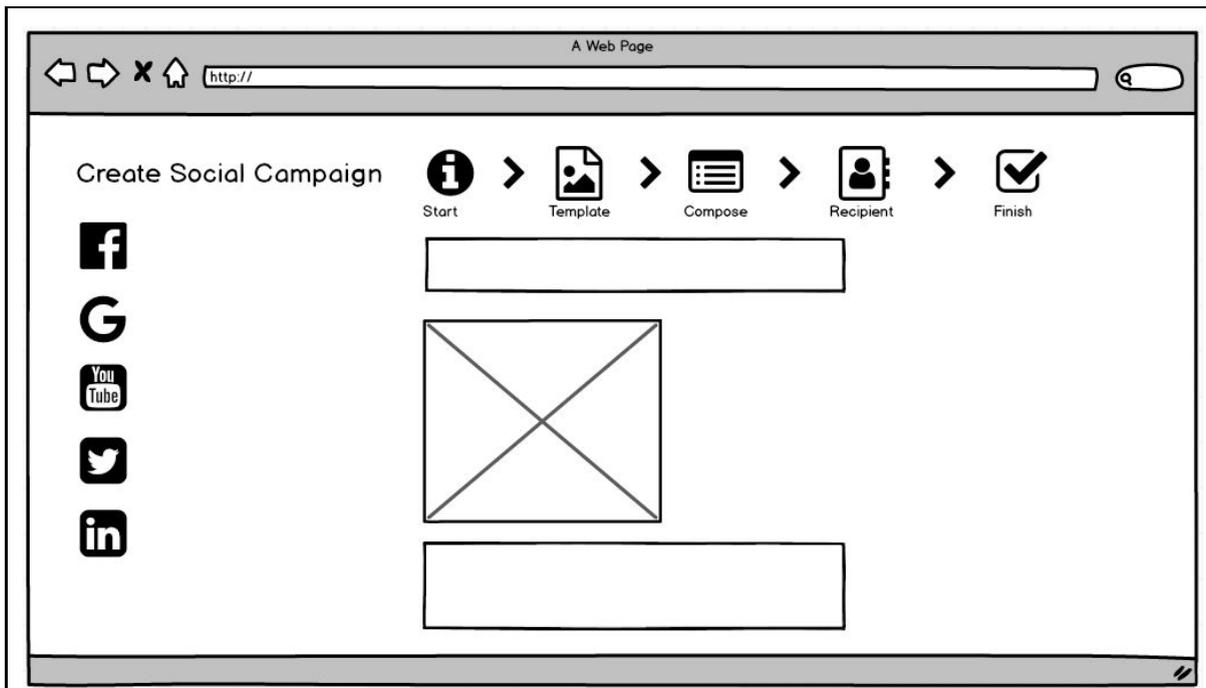


Step 6: Create Newsletter

The newsletter is an outstanding email that customized some content and sent it to each user automatically. The user clicks at the “Campaign” menu then “Create a newsletter.” The simple form appears, then enter the name of this newsletter, create Click next, then choose to create a newsletter from scratch, choose the layout, or choose the predefined template from the template gallery. Edit and add contents then preview to make sure it looks great on mobile and desktop.

The user can add a landing page created in step 5 on the email and invite readers to take further action by clicking on the prominent link to proceed to the landing page for a better chance to convert and measure.

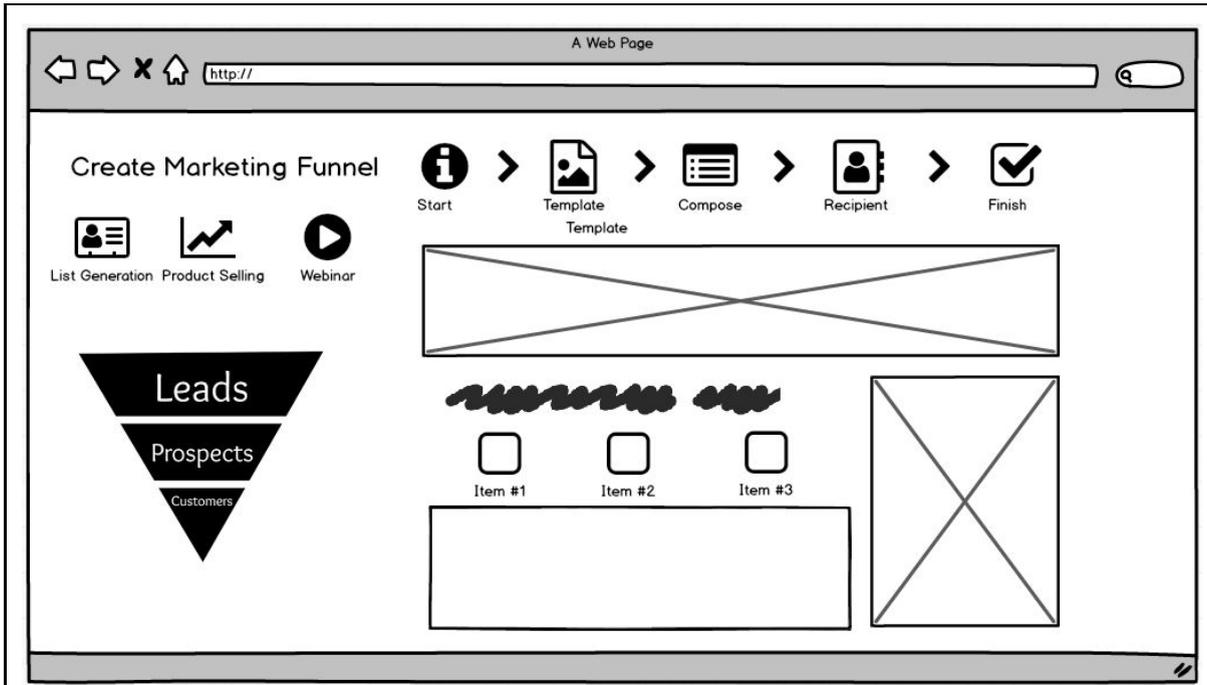
Then refine the recipient by include and exclude from the criteria. After that, recheck everything before saving it as a draft. The user can choose to send an email newsletter later, schedule a suitable time to send, or just send it right away.



Step 7: Create Social Media Campaign

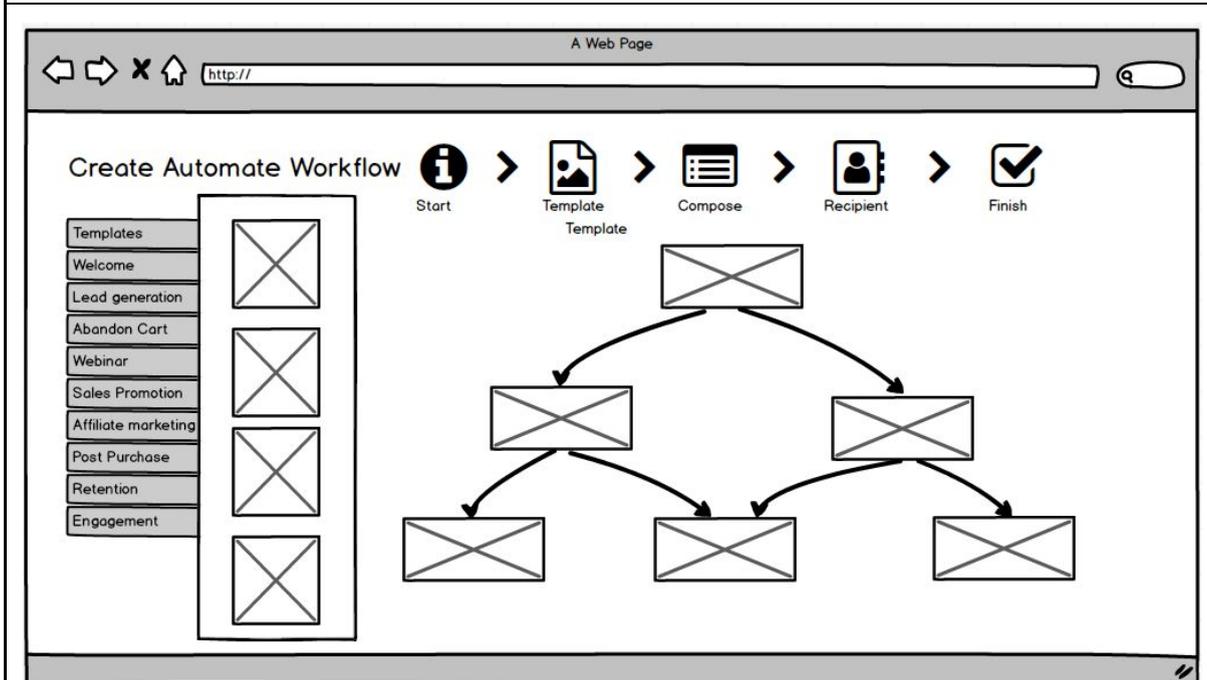
Social media Campaign is a single image or video or a set of pictures, including copywriting text that can be promoted on social media platforms. User clicks at the “Campaign” menu then “Create social media campaign.” The list appears (Facebook, Google, Youtube, Twitter, LinkedIn). Choose Facebook for this case.

The simple form appears, then enter the name of the campaign, create Click next, then fill in the campaign related information in the form. Edit and add contents then preview to make sure it looks great on mobile and desktop. The user can add a landing page created in step 5 on the description of the campaign and invite readers to take further action by clicking on the prominent link to proceed to the landing page for a better chance to convert and measure. The user can choose to publish the campaign right away or save it as a draft.



Step 8: Create Marketing Funnel

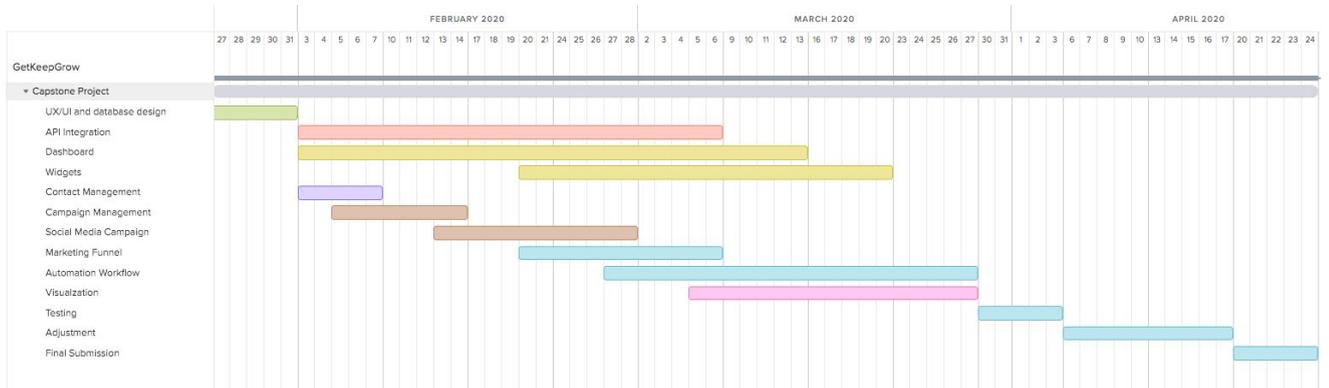
The marketing funnel is the set of steps from a newsletter or social media campaign to multiple landing pages for better performance tracking. The user clicks the “Automation” then “Funnel.” Choose the funnel they want to use from List generation, Product selling, Webinar then the system will show the predefined steps for each type of funnel on screen. Add and edit each step accordingly, then save it.



Step 9: Create marketing automation workflow

Marketing automation workflow is an advance feature of the platform. The user can freely design multiple steps and rules by clicking on the “Automation” then “Workflow.” Then, drag objects from the object templates on the left panel into the workflow canvas on the left panel.

6. Work Plan and Milestones



Milestone	Completion Date	Description of Deliverible (s)
UX/UI and database design	January 31, 2020	Hi-Fidelity Mockups UML diagrams Database Scheme design
Contact Management	February 7, 2020	Add/Edit/Delete contacts Contacts view & Sort Contact Filtering
Campaign Management	February 14, 2020	Newsletter Management Landing page Management Pre-defined Template/Layout
Social Media Campaign	February 28, 2020	Facebook Campaign Management Youtube Campaign Management Google Ads Campaign Management Twitter Campaign Management
Marketing Funnel	March 6, 2020	List generation Funnel Product selling Funnel Webinar Funnel
API Integration	March 6, 2020	Facebook Graph & Marketing API Integration Youtube API Integration Google Ads API Integration Twitter API Integration
Dashboard	March 13, 2020	User Management Navigation design Dashboard layout
Widgets	March 20, 2020	Chart Widgets Table Widgets Map Widgets
Visualization	March 27, 2020	Implimenting d3
Automation Workflow	March 27, 2020	Drag & Drop Interface Workflow engine
Testing	April 3, 2020	Testing with real-world data
Adjustment	April 17, 2020	Features adjustment Code refactoring
Final Submission	April 24, 2020	Done

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Competitors

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GetResponse Available at: <https://www.getresponse.com/> [Accessed 13 Oct. 2019]

Hubspot Marketing Hub Available at: <https://www.hubspot.com/products/marketing> [Accessed 13 Oct. 2019]