

elloo

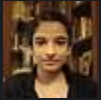
Saturday, April 6th



MW

Meenakshy N S 7:04 PM

Heyy guys



AA

Neeraja Krishnakumar 7:04 PM

Hey!



MW

Meenakshy N S 7:06 PM

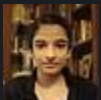
I did some research and asked questions on sites like reddit, from what I have gathered it seems like what they struggle the most with are 1. Money 2. Human resources and 3. Expertise

7:07

And it's extremely difficult to get customers because people tend to go for brands that are extremely popular

7:08

So getting people to trust their services seems like a huge problem to be tackled



AA

Neeraja Krishnakumar 7:10 PM

Yes, I too found these issues to be the main problem. So I think marketing and competitive analysis would be a good route to go through

7:12

How about we develop a product that conducts competitor analysis and extracts current market trends to find keywords which can be used to generate a marketing strategy for our target SME?



MW

Meenakshy N S 7:18 PM

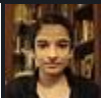
Yep a tool that would minimize the cost required for marketing would be great



MW

Meenakshy N S 7:24 PM

We would need to identify the competitors for each customers then. Do you have any ideas on how to do competitor analysis?



AA

Neeraja Krishnakumar 7:26 PM

For the initial version of the product, I think we should select a target SME and obtain their competitors using any rankings available. We could then use web scraping on their official websites to find and classify keywords into strategies. Eg: whether they are targeting a specific demographic or if they are advertising based on important dates



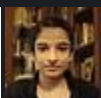
MW

Meenakshy N S 7:30 PM

I see. Yeah, I think this could be deployed as the basic version. Later we can expand and consider their social media accounts like twitter and instagram, along with their official websites to find their strategies.

7:31

We could also automate the process of identifying the competitors from rankings later on



AA

Neeraja Krishnakumar 7:31 PM

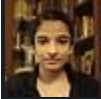
Yes exactly. This product has a lot of future scope



MW

Meenakshy N S 7:36 PM

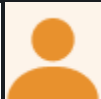
Agreed. What do you guys think of this?



AA

Neeraja Krishnakumar 7:38 PM

Also, please share if anyone has any other ideas



NW

nandhanaraghunath12 7:40 PM

It won't hurt to try ,i think



MW

Meenakshy N S 7:42 PM

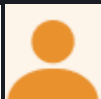
I was thinking of creating a tool that would help with marketing, this pretty much coincides with that idea

7:43

So how about we proceed with this?

7:44

Or does anyone want to add ideas?



NW

nandhanaraghunath12 7:44 PM

I am in



A Ardra Nair 7:45 PM

Seems like a great idea ! let's delve into this..



BW

binilbabup.2002 9:28 PM

Also guys another idea maybe we can use is analysing feedbacks, we could use llms to identify the general trends and get useful insight from different feedbacks.i think it would really help business to grow in a positive dirction



MW

Meenakshy N S 9:31 PM

Yeah good idea, we could extract insights from feedbacks using LLMs, should we incorporate this to the current idea as an additional feature?



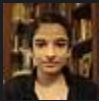
1



1 reply

4 days ago

[View thread](#)



AA

Neeraja Krishnakumar 9:36 PM

That's a really useful feature. Let's incorporate that as well



MW

Meenakshy N S 9:37 PM

Alright. Does anyone have any concerns



NW

nandhanaraghunath12 9:53 PM

what about the accuracy of such an ai centred sysytem, shouldn't it require some kind of confirmation or something...just asking



MW

Meenakshy N S 10:07 PM

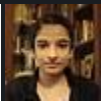
Good question! Maybe we can ask the SME representatives to confirm that the chosen keywords or topics are accurate and relevant to them. We could increase the accuracy this way



NW

nandhanaraghunath12 10:07 PM

ok then



AA

Neeraja Krishnakumar 10:10 PM

That's a great idea. It would also give the SME more control over the kind of concepts involved in the marketing strategy (edited)



MW

Meenakshy N S 10:36 PM

Okay. We can proceed with this idea then



MW

Meenakshy N S 10:41 PM

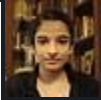
We need to:

1. Identify the competitors
2. Do web scrapping on their websites
3. Do analysis and obtain relevant informations
4. Ask the SDE representative to confirm

5. Come up with strategies

10:42

Is there anything else to add?



AA

Neeraja Krishnakumar 10:42 PM

Customer feedback analysis

10:46

Let's move on to the implementation details? Through my research, I found that gitlab and netlify are good deployment options. As for the technologies, perhaps more research is needed to choose those which best fit our product and chosen deployment platform

10:46

Does anybody have any ideas?



MW

Meenakshy N S 10:56 PM

Alright then it would be

We need to:

1. Identify the competitors
2. Do web scrapping on their websites
3. Do analysis and obtain relevant informations
4. Ask the SDE representative to confirm
5. Come up with strategies
6. Customer feedback analysis

10:57

Let's move on to the work allocation

10:58

[@A Ardra Nair](#) Ardra , [@binilbabup.2002](#) Binil, can you guys search for the technologies and look into those two deployment options mentioned by Neeraja (edited)



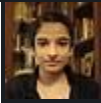
1

10:59

[@Neeraja Krishnakumar](#) Neeraja can handle the backend and [@nandhanaraghunath12](#) Nandhana can do the frontend and I'll work on whichever part requires more assistance

11:00

Does anybody has any issues with this?



AA

Neeraja Krishnakumar 11:02 PM

This is fine with me. I'll get started with the code design. Please confirm the technologies asap



MW

Meenakshy N S 11:03 PM

Okayy then! Let's do our best!

Sunday, April 7th



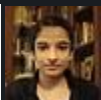
A Ardra Nair 5:30 PM

Hey all

5:30

Can you pm me these details for our presentation

IMG_20240407_173018.jpg



AA

Neeraja Krishnakumar 5:31 PM

Sure



MW

Meenakshy N S 5:32 PM

Yepp



MW

Meenakshy N S 7:50 PM

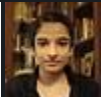
Heyy guys

7:51

Since we got a solution to our problem from the meet, let's continue with our original idea of webscrapping from the sites of top competitors

7:52

I'll look into the websites we can use and @Neeraja Krishnakumar can look into the technologies and how to perform webscrapping



AA

Neeraja Krishnakumar 7:54 PM

Sure! I've already started with the initial setup. @A Ardra Nair @binilbabup.2002 have you found anything from your research on the best technologies and deployment environment?

7:55

This is a link to one of the possible deployment options. Please check it out as well as other alternatives and suggest the best one <https://www.netlify.com/>



Netlify

Scale & Ship Faster with a Composable Web Architecture | Netlify

Realize the speed, agility and performance of a scalable, composable web architecture with Netlify. Explore the composable web platform now! (592 kB)

htt

[ps://www.netlify.com/](https://www.netlify.com/)



MW

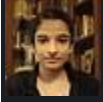
Meenakshy N S 8:10 PM

So now our problem statement would be:

8:11

Problem statement: SMEs lack the resources and expertise to conduct effective competitor analysis and review marketing strategies. They struggle to optimize their marketing efforts,

hindering their growth. A cost-effective and user friendly model that analyzes competitor websites and suggests marketing strategies through SWOT analysis is one way to address the issue (edited)



AA

Neeraja Krishnakumar 8:12 PM

Looks good!



A Ardra Nair 8:12 PM

Should we shorten this a little bit while including it in the slide?

8:13

In most cases presentations keep the problem statement to be very short and condensed right?



MW

Meenakshy N S 8:15 PM

@A Ardra Nair yes it should be short and concise, please handle that on the presentation preparation.



A Ardra Nair 8:16 PM

Sure



A Ardra Nair 8:33 PM

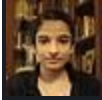
SMEs need a cost-effective and user-friendly model to analyze competitors' websites,extract current market trends and optimize their marketing strategies to overcome resource and expertise constraints to expand their business.



1

8:33

Will this do?



AA

Neeraja Krishnakumar 8:55 PM

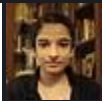
This fits well! Would it be possible to include the SWOT analysis part in this as well?



1 reply

3 days ago

[View thread](#)



AA

Neeraja Krishnakumar 8:58 PM

Also, I'm not sure whether we can incorporate current market trends extensively in the initial version due to time constraints. How about we move that to the future scope?

8:59

What do you all think?



MW

Meenakshy N S 9:37 PM

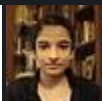
[@Neeraja Krishnakumar](#) That's alright! Let's focus on the basic version right now.

9:37

I'll check how to do SWOT analysis while you handle the webscrapping

9:39

I have shared the links for usable websites in dm



AA

Neeraja Krishnakumar 10:42 PM

Ok, thanks! I have installed Selenium and done basic webscrapping on one of these websites to obtain its contents. Shall I move onto the review extraction and analysis?



MW

Meenakshy N S 11:00 PM

That's great! And yes

Pinned by

Meenakshy N S



A Ardra Nair 11:15 PM

SMEs need a cost-effective and user-friendly model to analyze competitors' websites by incorporating the SWOT analysis techniques and thereby optimize their marketing strategies to overcome resource and expertise constraints to expand their business.



1

11:15

What say?

Monday, April 8th



MW

Meenakshy N S 7:47 PM

Looks good



MW

Meenakshy N S 7:51 PM

@Raymond Kusch Can we use OpenAI langchain module?



1 reply

Today at 4:13 AM

[View thread](#)

Today



HC

Raymond Kusch 4:13 AM

replied to a thread:

@Raymond Kusch Can we use OpenAI langchain module?

Absolutely!



HC

Raymond Kusch 4:33 AM

Update # 2:

It has been brought to my attention that using OpenAI and Claude models may be a barrier due to costs. To relieve this burden on all teams, I have created API keys that all teams can use for their development.

OpenAI:

sk-FsoEn2wu5PD2VQLjjT6RT3BIbkFJukeRIbcPtgJ6nOXhzqE1

Claude:

sk-ant-api03-lc9ql-Eqz3JBXMzGubuFb-gzY_FcCHY8ToEzXe0wbPf3ACak7WJymDD-03Hok2ZKI4dVIVaXrTjPSC7jgVk00w-p-nGIAAA

Note. These keys will be deleted after the competition.



1 reply

Today at 12:44 PM

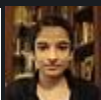
[View thread](#)



MW

Meenakshy N S 12:45 PM

Hey guys! Let's discuss our updates here



AA

Neeraja Krishnakumar 12:48 PM

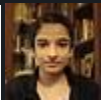
There was actually an issue with the earlier data from SME websites due to internal positive bias. As an alternative, I've webscrapped the Flipkart links @Meenakshy N S provided and used loops to collect all the reviews of the specific product we are considering (edited)

12:51

After that, I've used Hugging Face models to process the data and classify them into positive and negative sentiments

12:55

This was followed by feature extraction to shorten long comments using question-answering module. These were then matched to labels using zero-shot classification



AA

Neeraja Krishnakumar 1:02 PM

As for SWOT analysis, I had initially thought of splitting the dataset into two on the basis of sentiment- positive (Strength) and negative (Weakness)- and extracting the three most frequently occurring values in each. But upon analysing the results, some of these frequently occurring values only held a nominal percentage in the dataset. So I thought a better way would be to use a threshold to measure the influence of each classified value on the dataset as a whole before selecting it

1:02

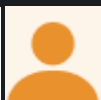
Does anyone have any suggestions to optimize this?

1:05

To find the Threats and Opportunities of our target SME, the idea was to run the same process on its competitors' products through Flipkart comments. Their Strengths and Weaknesses indirectly act as our target SME's Threats and Opportunities respectively

1:09

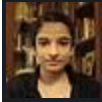
The final SWOT analysis is represented in a normalised form by considering the fraction of positive and negative reviews, and contribution of each classified value (eg: comfort) to the entire and respective (positive or negative) datasets



NW

nandhanaraghunath12 1:21 PM

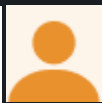
What did you meant by using threshold ?? (edited)



AA

Neeraja Krishnakumar 1:26 PM

The problem with choosing the three most frequently occurring classifications (eg, comfort, price, style), was that their percentages varied too much, as in some had around 90 percent while the some were as low as 1 percent in certain subsets of data. So a threshold seemed like a better way to ensure that the chosen values actually constituted a certain percentage of the reviews (edited)



NW

nandhanaraghunath12 1:33 PM

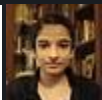
ooh, got it



MW

Meenakshy N S 1:50 PM

Alright, nice work @Neeraja Krishnakumar!



AA

Neeraja Krishnakumar 1:52 PM

Thanks! How is the strategy generation coming along?

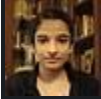


MW

Meenakshy N S 2:35 PM

Initially I searched for a suitable model for strategy generation, and settled on GPT2 since it was free and suitable for text generation. The context and other relevant details were provided and the strengths and weaknesses were represented in two lists. This was used along with the prompt to generate a marketing strategy which highlights the strengths and turns the weaknesses less unappealing. The prompt had to be adjusted several times to get a good

enough result. Then later, upon receiving the key thanks to @Raymond Kusch I tried to make a GPT3 version of it, but due to time constraints, decided that it would be best to stick to the GPT2 version of the code. I have send you the code for it, @Neeraja Krishnakumar please handle the integration of it to the code you have done. (edited)



AA

Neeraja Krishnakumar 2:38 PM

I received your mail. It looks great! I'm doing the integration right now



MW

Meenakshy N S 2:53 PM

Other than this, since we were adviced to focus on a single domain, after some research on the internet, choose a MSE company, BluePearlwatches, and collected the relevant links. Since we were initially planning to do both the company's website and Flipkart's website, I was working on the Flipkart one and came up with a code for webscrapping on it. However, due to some issues with the internal sever while @Neeraja Krishnakumar tried to run the code, she came up with an alternative one for it, a good one at that as well!

Then as for the accuracy measurement, after some research and trying to find a good method for accuracy measurement, found out that it would be difficult to prove the accuracy without human intervention to verify the accuracy or without having a dataset containing the history of SWOT analysis done on the company. Due to the constraints on time and resources for the hackathon, it would be difficult to mathematically prove the accuracy of our product.

2:56

How's the frotend part going?



HC

Raymond Kusch 4:43 PM

Unfortunately the original OpenAI Key was automatically revoked by OpenAI. They found that it was uploaded to GitHub and considered it leaked. Please see a new, working key below and remember to keep it in a safe place (do not push to Git).

New OpenAI Key:

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



HC

Raymond Kusch 5:14 PM

Note: These messages are going to all teams - no one is being blamed or in trouble.

Both OpenAI and Anthropic have revoked the provided API keys due to uploading to GitHub.

Teams: If your team needs a key, I will provide it to you at the time of your presentation. Please just let me know at the very beginning of your time slot.

Lastly - great job to all! We can't wait to see what you've built!