**Meeting in \_General\_-20240225\_202202-Meeting Recording**

February 25, 2024, 3:22AM

14m 48s

 **Lara Bezerra (Student)** 0:04  
It's up.

 **Zhuoyi Wang (Student)** 0:07  
Alright.  
Hello everyone, we're A-Team Chevron here to present.  
You our solution to the Chevron Newenergies coding challenge we designed and developed an interactive learning web application to educate young adults about Chevron new energies.

 **Lara Bezerra (Student)** 0:28  
I'm Lara Bezerra and I'm a senior in applied mathematics and statistics.  
With the computational emphasis.

 **Zhuoyi Wang (Student)** 0:34  
My name is Charlie Huang.  
I'm a junior in computer science with an emphasis on robotics and intelligence systems, as well as an engineering might physics minor.

 **Ethan Wong (Student)** 0:45  
And I'm Ethan Wong.  
I'm a junior in the going for a Bachelor of Science and just General computer science.

 **Lara Bezerra (Student)** 0:53  
And as per the specifications of the Chevron challenge, our goal was to develop a tool that educates about the importance, benefits and mechanisms of new energy technologies to young adults, specifically about the Chevron Newenergies program.

 **Ethan Wong (Student)** 1:11  
And upon hearing this, our solution, we decided to make a web application with multiple features.  
Uh, mostly.  
It's just a web page featuring multiple different pages about different technologies that Chevron Chevron is currently interested in and investing in.  
There's other features to help people learn more about Chevron Newenergies 2 features that we implemented where a chat bot trained on a data set made for the website and also a memory game just so once you're done reading about all the new new Chevron technologies, you can test yourself on all the terms.  
OK.  
And it's in order to make this website, we had a react front end made with mostly JavaScript, you know, or to make a user interface for people to click through, make it easy to access and also visually pleasing on the back end side we use Python to connect the chat bot and and yeah answer questions for anything the user wants that's not listed directly on the page.  
And then you also use HTML because we're building a web app and also because not everyone was familiar with React.  
So making the basis just an HTML first was very helpful in getting started.

 **Lara Bezerra (Student)** 2:31  
And for the application layout, our website will lend you on this home page and over here on the top left you'll see there's a Chevron Web logo and then we'll continue and we have the different features which will feature each of the technologies that Chevron's interested in.  
Over here on the right top side, we have the memory game where you can click and it will take you straight to the memory game.  
In the middle, you'll see the main content, which will vary between pages about the different technologies and in the main page we have the highlights.  
In a little picture of our factory over here on the bottom right hand side, we have the chat bot where you can click on and then you will answer any questions that you have.

 **Zhuoyi Wang (Student)** 3:16  
Alright, so for our solution, the cost of implementation is really not that much.  
Most of the cost goes into developmental costs, including manpower, using tools and services, learning resources and testing.  
For development, because we're it's done in such a small scale, there's basically no cost associated with it at all.  
However, in reality there does need to be some sort of maintenance for a website to keep the libraries that we've used, which is React, flask and Materials UI keep those up to date.  
So there's going to be a maintenance maintenance costs associated with that and our app also integrates with open AI API.  
So there is going to be a API price for that, but it's reasonably small, so our cost of of implementation after its initial launch is very minimal.

 **Lara Bezerra (Student)** 4:22  
For the contents covered in our website, we have the main ones that first Chevron new energies is currently working in.  
We have the CCUS carbon capture usage and storage.  
We also have the global partnerships and all the investments that Chevron has made.  
We also talked about the hydrogen delivery and how Chevron's working on a large scale hydrogen delivery to all the cities.  
We also speak of carbon offsets and all the efforts to everyone is currently putting into them and a little on renewable energies.

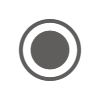
 **Zhuoyi Wang (Student)** 4:59  
Or challenges that's associated with the challenge.  
We've ran into several issues.  
Most of them are technical on our team with had zero previous experience with React basically.  
So it was a really steep learning curve to to learn the react front end to end, to learn to use the libraries of material UI.  
Umm.  
And then also one of the major challenges that we've ran into is to connect the react front end with the flashback and and have it displayed the correct information.  
And finally, using libraries and APIs, we had to familiarize ourselves with the documentations, which also took a while and was difficult.

 **Ethan Wong (Student)** 5:49  
Uh, on the other side?  
The another challenge ran into was general project management.  
One thing being time management as we have to find time to meet up and all of us had our own schedules.  
So having to balance development time and like keep things moving while also being able to meet up and talk about things with difficult, another thing was scope creep, where we kept wanting to add more features and make the website better and eventually got a little messy.  
And realistically, if we went back, it would be better if we took like an agile or scrum approach in like really set out specific individual tasks.  
But as we are all beginners on development, it got a little hectic at the end.  
OK.  
But there's some key learning feature here is that we learned over the course of this challenge, one was general web development.  
As we learned to make the website and also translate our skills from different languages, is we got better and like got more ambitious with the features we were trying to implement.  
Uh.  
Another thing that we struggled a bit with was just actually looking at the existing solutions because a lot of the details of the Chevron challenge is, is stuff that we're being exposed to for the first time, like hydrogen delivery and CCUS.  
So those topics we have to basically teach ourselves from scratch and another thing is just learning to communicate better, cause when you're in a team, just actually talking to set up meetings and like, ask questions with is a bit difficult as we didn't know exactly what we need to ask and like exactly what we needed help with at the beginning.  
And we definitely learn more about that as the project progressed.

 **Zhuoyi Wang (Student)** 7:47  
All right.  
And that brings us to our last and final slide on future improvements.  
One of the things that we could do to improve our website so far is to actually deploy it, select the hosting service like Google Cloud or Amazon Web Services or and or purchase a domain to host this tool and then for scaling up we could also parade some sort of low tester and make sure that our app runs fine.  
And in terms of the features itself, we could have the users have an account associated with the education or content and like have it saved their progress.  
We can expand upon the content a little bit more and go deeper.  
And then in addition, we could have optimized performance on the website and last but not least, community and engagement improvement, we can collect user feedbacks and see what our users think of our web application and make improvements based on that.  
And then also create a leaderboard you know for to improve the memory game, create a leaderboard and just to encourage more participation.  
And that's it for our presentation.  
Thank you for watching.  
Now we're gonna switch to our life product demo.  
All right, so this is the product that we have developed.  
This is our main page again with our picture and as we Scroll down there is information highlights about CCUS hydrogen renewable global partnerships et cetera, et cetera.  
And let me present to you the information pages.  
So in these pages we have prompts such as what is ccos.  
A short explanation of it and then the more detailed explanation on the side.  
We can click on different tabs to show different information and all of these are from the Chevron Energies website and at the bottom.  
We also have frequently asked questions on Ohm about Chevron Newenergies and again with renewable energy and hydrogen.  
These different tabs all show different information.  
Same with carbon offset and for partnerships and projects we have some pretty detailed information and an interactive map.  
So, for example, when Colorado there is the IHS market, which is a partner, and then Starfire, a boulder based startup.  
And of course, there's other States and organizations that we can click on.  
And then, of course, there's also a global map of the partners of Chevron.  
And there's also the frequently asked questions and now?  
Let me present you done memory game.

 **Ethan Wong (Student)** 11:16  
So yeah, just because we wanted to include something a bit more fun than just just laying out all the information, we just had a little memory game at the end of our website.  
So that once you're done reading about everything Chevron's doing, you can test yourself in a sort of fun way and all the knowledge you've learned and maybe retain some of this information.  
You can start the game by clicking yes.  
One of the cards you know, so either an answer or question behind them.  
You basically have to memorize their positions and just answer the questions and match the correct question and answer.  
It's a pretty simple game, but it's just something fun and to do with the new information you've learned.  
Hopefully.  
Let's see Joey going here like we have a move counter and a timer.  
So if you really wanna feel, you could go for high scores.  
Are you thinking of maybe adding like a leader board?  
That would actually be connected to a database so that we could track its stuff and also just like show like a global like top ten, just to make it a bit more fun and interesting.  
Just something to aim for.  
You can see Joe.  
He's finishing it up.  
Got it.  
Good time.

 **Zhuoyi Wang (Student)** 12:38  
Yeah.  
And there it tells you how many movies you've had and how long it took you.  
All right.  
So that's the memory game.  
And then let's go back to the chat bot O on in this bottom right corner, there's a chat bot button that we can click on and show a chat bot.  
And as you can see earlier I just typed in hi it's prompt me how it can assist me.  
Let's ask it a question.  
What the advantages of?  
New able energy.  
All right.  
There it is.  
So let's see.  
The chat bot is telling us renewable energy offers several advantages, lining with Chevron's commitment and then the key benefits.  
Umm, So what if we ask it and ask it and irrelevant question?  
What is that meaning of life?  
All right, so it's telling me or it's telling us that the question of meaning of life is deep and philosophical, and it has really nothing much to do with Chevron.  
Umm.  
As you can see, Kiran's focus on energy technologies.  
So yeah, uh, this chat bot is could be a very useful feature when users are reading the pay the pages and they come across something that's not explicitly listed on their page that they're confused about, then they can use this chat bot feature to have their questions answered in addition to the frequently asked questions.  
So and that would wrap up our product demonstration.  
Alright, thank you guys all for watching.

 **Lara Bezerra (Student)** stopped transcription