Q 3.2

Sample interaction 1 (Transcript at the end of questions)

```
Welcome to the FIFA WORLD CUP 2022 chatbot!
 Thanks Sajal Chandra!
 Are you excited for the upcoming FIFA World Cup?
 It sounds like you're all set for the greatest tournament in the world!
Tell me Sajal Chandra, which team are you supporting in this year's world cup?
 Ah, the most in-form team in the world! They are strong favourites to win for sure. Coming into the World Cup off the back of a 36-match unbeaten streak isn't too shabby
 Who is your favorite player
 Greatest footballer of all time! He will be looking to complete his trophy cabinet by adding the missing piece- the World Cup.
 How confident are you about your team's chances?
      quietly confident. Even though there are better teams in the tournament, I think Argentina's form is a cruical factor
 Thank you for your responses! Here's a short stylistic analysis of your answers during this interaction. Based on my stylistic analysis, I've identified the following psychological correlates in your response:
  Personal, social
 Would you like to continue chatting?
2) No thanks
 What kind of analysis would you like?
 1) Sentiment
 3) Both
```

```
What kind of analysis would you like?
1) Sentiment
2) Stylistic
3) Both
Tell me Sajal Chandra, are there any other teams that you like?
One of the most passionate footballing nations! They are always among the favorites.
Who is your favorite player from their team?
He is quickly becoming one of the best midfielders in the world. Unbelievable to think that he's only a teenager!
How confident are you about this team's chances?
Sounds promising! I hope they do well.
Thank you for your responses! Here's a short stylistic analysis of your answers during this interaction.
Based on my stylistic analysis, I've identified the following psychological correlates in your response:
- Use of concrete nouns, interest in objects/things
 Informal, personal
- Personal, social
Would you like to continue chatting?
1) Yes!
2) No thanks
What kind of analysis would you like?
1) Sentiment
2) Stylistic
3) Both
What is your first world cup memory?
I remember watching the 2010 World Cup with my father and grandfather. The matches used to kick off around midnight- which was way past my bedtim
That is awesome! I can sense your excitement while talking about this.
```

```
Would you like to continue chatting?

1) Yes!

2) No thanks

1

What kind of analysis would you like?

1) Sentiment

2) Stylistic

3) Both

Sentiment

What is your first world cup memory?

I remember watching the 2010 World Cup with my father and grandfather. The matches used to kick off around midnight-

[1]

That is awesome! I can sense your excitement while talking about this.

Would you like to continue chatting?

1) Yes!

2) No thanks

No thanks

Thank you for using the chatbot. Enjoy the World Cup!

Process finished with exit code 0
```

Sample Interaction 2

```
Welcome to the FIFA WORLD CUP 2022 chatbot!
What is your name?
Thanks I'm Sajal Chandra!
Are you excited for the upcoming FIFA World Cup?
    lutely Yes!
[1]
It sounds like you're all set for the greatest tournament in the world!
Tell me I'm Sajal Chandra, which team are you supporting in this year's world cup?
That's a solid pick! They're the most successful footballing nation in history and who would want to bet against them winning a record 6th title this year?
Who is your favorite player?
He has not been very impactful at world cups, this is his chance to shine and take over the world!
I am extremely condifent! Brazil is the best team in the world!
Sounds promising! I hope they do well.
Thank you for your responses! Here's a short stylistic analysis of your answers during this interaction.
Based on my stylistic analysis, I've identified the following psychological correlates in your response:
- Use of concrete nouns, interest in objects/things
- Informal, personal
Personal, social
Would you like to continue chatting?
2) No thanks
What kind of analysis would you like?
1) Sentiment
3) Both
```

```
What kind of analysis would you like?
1) Sentiment
2) Stylistic
3) Both
Tell me I'm Sajal Chandra, are there any other teams that you like?
A deeply talented squad with a recent major tournament win in EURO 2016, Portugal will make waves in this tournament.
Who is your favorite player from their team?
His last ever world cup. He will want to go out with a bang!
How confident are you about this team's chances?
They are good but no one can defeat Brazil!
[1]
Sounds promising! I hope they do well.
Thank you for your responses! Here's a short stylistic analysis of your answers during this interaction.
Based on my stylistic analysis, I've identified the following psychological correlates in your response:
- Informal, personal
- Personal, social
- Use of concrete nouns, interest in objects/things
Would you like to continue chatting?
1) Yes!
2) No thanks
What kind of analysis would you like?
1) Sentiment
2) Stylistic
3) Both
 What kind of analysis would you like?
 1) Sentiment
 Stylistic
 3) Both
 What is your first world cup memory?
 Thank you for your responses! Here's a short stylistic analysis of your answers during this interaction.
 Based on my stylistic analysis, I've identified the following psychological correlates in your response:
 - Focused on the past
 - Use of concrete nouns, interest in objects/things
 - Informal, personal
 Would you like to continue chatting?
 1) Yes!
 2) No thanks
 Thank you for using the chatbot. Enjoy the World Cup!
 Process finished with exit code 0
```

- 1. What was the most challenging part of implementing your chatbot, from among all deliverables? How did that part of the chatbot hold up in your own sample interactions?
- -> The most challenging part was creating a finite state architecture for the chatbot. It is an open-ended task and has numerous possibilities. In my chatbot I created an architecture following the guide given in the assignment description- that helped a lot. In the end, I think it worked out well, and the dialogue flow is logical and natural.
- 2. If you had additional time to improve upon your final chatbot implementation, what are some potential upgrades you might make? How might you implement these?
- -> If I had additional time, I would have trained my model on more diverse datasets to make it capable of analyzing numerous types of inputs. I would have had to search for appropriate datasets to use for training my model.

Another possible upgrade for my chatbot would be adding more team and player information to make the user experience better for fans of lesser known teams and players.

Sample Interaction 1 Transcript

Welcome to the FIFA WORLD CUP 2022 chatbot!

What is your name?

I am Sajal Chandra

Thanks Sajal Chandra!

Are you excited for the upcoming FIFA World Cup?

Yes!

[1]

It sounds like you're all set for the greatest tournament in the world!

Tell me Sajal Chandra, which team are you supporting in this year's world cup?

I will be supporting Argentina.

Ah, the most in-form team in the world! They are strong favourites to win for sure. Coming into the World Cup off the back of a 36-match unbeaten streak isn't too shabby. They will be looking to add to their recent Copa America victory.

Who is your favorite player?

Lionel Messi

Greatest footballer of all time! He will be looking to complete his trophy cabinet by adding the missing piece- the World Cup.

How confident are you about your team's chances?

I am quietly confident. Even though there are better teams in the tournament, I think Argentina's form is a cruical factor.

[1]

Sounds promising! I hope they do well.

Thank you for your responses! Here's a short stylistic analysis of your answers during this interaction.

Based on my stylistic analysis, I've identified the following psychological correlates in your response:

- Informal, personal
- Personal, social
- Use of concrete nouns, interest in objects/things

Would you like to continue chatting?

- 1) Yes!
- 2) No thanks

Yes

What kind of analysis would you like?

- 1) Sentiment
- 2) Stylistic
- 3) Both

Both

Tell me Sajal Chandra, are there any other teams that you like?

Yes, I also support Spain.

One of the most passionate footballing nations! They are always among the favorites.

Who is your favorite player from their team?

I love Pedri.

He is quickly becoming one of the best midfielders in the world. Unbelievable to think that he's only a teenager!

How confident are you about this team's chances?

I'm not too sure. They have a good squad and an excellent coach, but the lack of a world class striker might be their downfall.

[1]

Sounds promising! I hope they do well.

Thank you for your responses! Here's a short stylistic analysis of your answers during this interaction.

Based on my stylistic analysis, I've identified the following psychological correlates in your response:

- Use of concrete nouns, interest in objects/things
- Informal, personal
- Personal, social

Would you like to continue chatting?

- 1) Yes!
- 2) No thanks

1

What kind of analysis would you like?

- 1) Sentiment
- 2) Stylistic
- 3) Both

Sentiment

What is your first world cup memory?

I remember watching the 2010 World Cup with my father and grandfather. The matches used to kick off around midnight- which was way past my bedtime but it was my summer vacations so I got to stay up late and watch some of the matches!

[1]

That is awesome! I can sense your excitement while talking about this.

Would you like to continue chatting?

- 1) Yes!
- 2) No thanks

No thanks

Thank you for using the chatbot. Enjoy the World Cup!

Sample Interaction 2 Transcript

Welcome to the FIFA WORLD CUP 2022 chatbot!

What is your name?

I'm Sajal Chandra

Thanks I'm Sajal Chandra!

Are you excited for the upcoming FIFA World Cup?

Absolutely Yes!

[1]

It sounds like you're all set for the greatest tournament in the world!

Tell me I'm Sajal Chandra, which team are you supporting in this year's world cup?

I am a Brazil fan.

That's a solid pick! They're the most successful footballing nation in history and who would want to bet against them winning a record 6th title this year?

Who is your favorite player?

I love Neymar

He has not been very impactful at world cups, this is his chance to shine and take over the world! How confident are you about your team's chances?

I am extremely condifent! Brazil is the best team in the world!

[1]

Sounds promising! I hope they do well.

Thank you for your responses! Here's a short stylistic analysis of your answers during this interaction.

Based on my stylistic analysis, I've identified the following psychological correlates in your response:

- Use of concrete nouns, interest in objects/things
- Informal, personal
- Personal, social

Would you like to continue chatting?

- 1) Yes!
- 2) No thanks

yes

What kind of analysis would you like?

- 1) Sentiment
- 2) Stylistic
- 3) Both

both

Tell me I'm Sajal Chandra, are there any other teams that you like?

I also like Portugal

A deeply talented squad with a recent major tournament win in EURO 2016, Portugal will make waves in this tournament.

Who is your favorite player from their team?

Ronaldo

His last ever world cup. He will want to go out with a bang!

How confident are you about this team's chances?

They are good but no one can defeat Brazil!

[1]

Sounds promising! I hope they do well.

Thank you for your responses! Here's a short stylistic analysis of your answers during this interaction.

Based on my stylistic analysis, I've identified the following psychological correlates in your response:

- Informal, personal
- Personal, social
- Use of concrete nouns, interest in objects/things

Would you like to continue chatting?

- 1) Yes!
- 2) No thanks

1

What kind of analysis would you like?

- 1) Sentiment
- 2) Stylistic
- 3) Both

2

What is your first world cup memory?

South Korea 2002. It was a blast! Brazil were unstoppable and won the title!

Thank you for your responses! Here's a short stylistic analysis of your answers during this interaction.

Based on my stylistic analysis, I've identified the following psychological correlates in your response:

- Focused on the past
- Use of concrete nouns, interest in objects/things
- Informal, personal

Would you like to continue chatting?

- 1) Yes!
- 2) No thanks

no thanks

Thank you for using the chatbot. Enjoy the World Cup!

Participant 1 - Dev Mehta

Transcript of interaction

2) No thanks

```
Welcome to the FIFA WORLD CUP 2022 chatbot!
What is your name?
Hi, My name is Dev Milan Mehta
Thanks Dev Milan Mehta!
Are you excited for the upcoming FIFA World Cup?
Not really, I do not watch soccer a lot, I only watch the finals and semi
finals.
[0]
Hmm, it seems like you're not too excited. Maybe talking about it will get you
in the spirit!
Tell me Dev Milan Mehta, which team are you supporting in this year's world
I am supporting Argentina because my favorite soccer player, Leo Messi plays
for that team.
Ah, the most in-form team in the world! They are strong favourites to win for
sure. Coming into the World Cup off the back of a 36-match unbeaten streak
isn't too shabby. They will be looking to add to their recent Copa America
victory.
Who is your favorite player?
Leo Messi
Greatest footballer of all time! He will be looking to complete his trophy
cabinet by adding the missing piece- the World Cup.
How confident are you about your team's chances?
I am not so sure about them winning. I do not follow soccer much so I am not
sure how good/bad are the other teams, but I know that for the past few
worldcups, they have been losing.
[0]
Doesn't sound like you're too confident about their chances!
Thank you for your responses! Here's a short stylistic analysis of your
answers during this interaction.
Based on my stylistic analysis, I've identified the following psychological
correlates in your response:

    Verbal fluency, cognitive complexity

- Informal, personal
 Personal, social
Would you like to continue chatting?
1) Yes!
```

```
What kind of analysis would you like?
1) Sentiment
2) Stylistic
3) Both
Both
Tell me Dev Milan Mehta, are there any other teams that you like?
No, i do not follow any other teams.
Wow, that is an interesting choice!
Who is your favorite player from their team?
Cristiano Ronaldo
His last ever world cup. He will want to go out with a bang!
How confident are you about this team's chances?
Not very much. Although they do have a strong team
[0]
Doesn't sound like you're too confident about their chances!
Thank you for your responses! Here's a short stylistic analysis of your
answers during this interaction.
Based on my stylistic analysis, I've identified the following psychological
correlates in your response:

    Use of concrete nouns, interest in objects/things

- Informal, personal
Personal, social
Would you like to continue chatting?
1) Yes!
2) No thanks
What kind of analysis would you like?
1) Sentiment
2) Stylistic
3) Both
The next world cup will be hosted by the USA. Will you plan to attend a few
matches live?
I am not into soccer so I don't think so.
You don't seem too enthusiastic about this. Let's move on.
Would you like to continue chatting?
1) Yes!
2) No thanks
Thank you for using the chatbot. Enjoy the World Cup!
Process finished with exit code 0
```

→ The participant was able to navigate the chatbot without any issuescompleting both the sentiment and stylistic analyses.

- → The analyses worked as expected.
- → Yes, the participant chose to repeat the sentiment analysis twice and the stylistic analysis once.
- → The participant was trying out different inputs, there was no miscommunication.

Participant 2 - Nihal Chandra

Transcript of interaction

```
Welcome to the FIFA WORLD CUP 2022 chatbot!
What is your name?
My name is Nihal Chandra
Thanks Nihal Chandra!
Are you excited for the upcoming FIFA World Cup?
Yes, I expected a better start but its okay
[0]
Hmm, it seems like you're not too excited. Maybe talking about it will get you
in the spirit!
Tell me Nihal Chandra, which team are you supporting in this year's world cup?
I'll be supporting Argentina
Ah, the most in-form team in the world! They are strong favourites to win for
sure. Coming into the World Cup off the back of a 36-match unbeaten streak
isn't too shabby. They will be looking to add to their recent Copa America
victory.
Who is your favorite player?
Messi
Greatest footballer of all time! He will be looking to complete his trophy
cabinet by adding the missing piece- the World Cup.
How confident are you about your team's chances?
They have a strong chance, but I have an instinct that some other team might
play a spoilsport
[0]
Doesn't sound like you're too confident about their chances!
Thank you for your responses! Here's a short stylistic analysis of your
answers during this interaction.
Based on my stylistic analysis, I've identified the following psychological
correlates in your response:
- Verbal fluency, cognitive complexity

    Use of concrete nouns, interest in objects/things

    Informal, personal

Would you like to continue chatting?
1) Yes!
2) No thanks
```

```
What kind of analysis would you like?
1) Sentiment
2) Stylistic
3) Both
Tell me Nihal Chandra, are there any other teams that you like?
France is another team I follow
The reigning champions! They have an extremely talented squad, it will be
interesting to see if they can repeat the heriocs from 4 years ago.
Who is your favorite player from their team?
Paul Pogba
Wow, that is an interesting choice!
How confident are you about this team's chances?
I dont think they'll go all the way to the finals
[0]
Doesn't sound like you're too confident about their chances!
Thank you for your responses! Here's a short stylistic analysis of your
answers during this interaction.
Based on my stylistic analysis, I've identified the following psychological
correlates in your response:

    Use of concrete nouns, interest in objects/things

    Informal, personal

- Personal, social
Would you like to continue chatting?
1) Yes!
2) No thanks
What kind of analysis would you like?
1) Sentiment
2) Stylistic
3) Both
What is your first world cup memory?
I watched the 2010 World Cup with friends!
You don't seem too enthusiastic about this. Let's move on.
Would you like to continue chatting?
1) Yes!
2) No thanks
No thanks
Thank you for using the chatbot. Enjoy the World Cup!
Process finished with exit code 0
```

→ The participant completed both analyses without any confusion.

- → The sentiment analysis at the end was incorrect. The rest of the analyses worked as expected.
- → The participant repeated sentiment analysis twice and stylistic analysis once.
- → The participant was trying out different inputs. There was no miscommunication.

Survey Results:

Dev Mehta

→ In this conversation, I knew what I could say or do at each point of the dialogue.

5

→ The system worked the way I expected it to in this conversation.

5

→ The dialogue produced by this system seemed natural.

5

Nihal Chandra

→ In this conversation, I knew what I could say or do at each point of the dialogue.

5

→ The system worked the way I expected it to in this conversation.

5

→ The dialogue produced by this system seemed natural.

5

Analysis

Both participants gave 5/5 points for each survey question. I was expecting a good score for questions 1 and 3- as the architecture of the chatbot facilitates natural dialogue flow and gives clear instructions in the prompts.

For question 2, I expected the sentiment analysis model to give more incorrect responses (as the training data was for a slightly different task) but it performed better than expected during the evaluations.