Adaptive chatbot

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Abstract

We will introduce an adaptive chatbot, leveraging basic decision-tree logic to tailor suggestions based on user preferences and incorporating user feedback to refine its decision-making process. The chatbot starts conversations with users, gathering data about their preferences and adapting its decision tree accordingly. When users provide feedback on recommends something (What the recommendation is, we will decide later on during the project, e.g., Coffee, gaming, Etc), the chatbot dynamically adjusts its future recommendations. This approach showcases the effectiveness of user-driven adaptation in chatbots, illustrating how a straightforward decision-tree logic can create personalized and responsive experiences in recommendation systems.

1 Decision Tree

We will use a flowchart-like structure. In which each internal node represents a "test" on an attribute. Each branch represents the outcome of the test, and each leaf node will then represent a class label, a decision taken after computing all attributes.

2 Chatbot About

We have yet to determine what the chatbot is deciding on. We are brainstorming. Possible chatbots are Nurriture, Drinking, Animals, and cameras.

3 Implementation

Programming language: We will mainly use Python for the programming language.

Structure: We are thinking about implementing the Chat-Bot with data in the form of CSV files:

```
Animal, Likes, Agressive, Needs Love, Eats much

Cat, 3, Sometimes, Yes, No
Dog, 2, Sometimes, Yes, Depends
Cow, 10, Sometimes, Yes, Yes
```

And the chat bot takes then action to respond to the users input based on the data in the CSV file. The respond is then based on our decision tree, which is described in 1.

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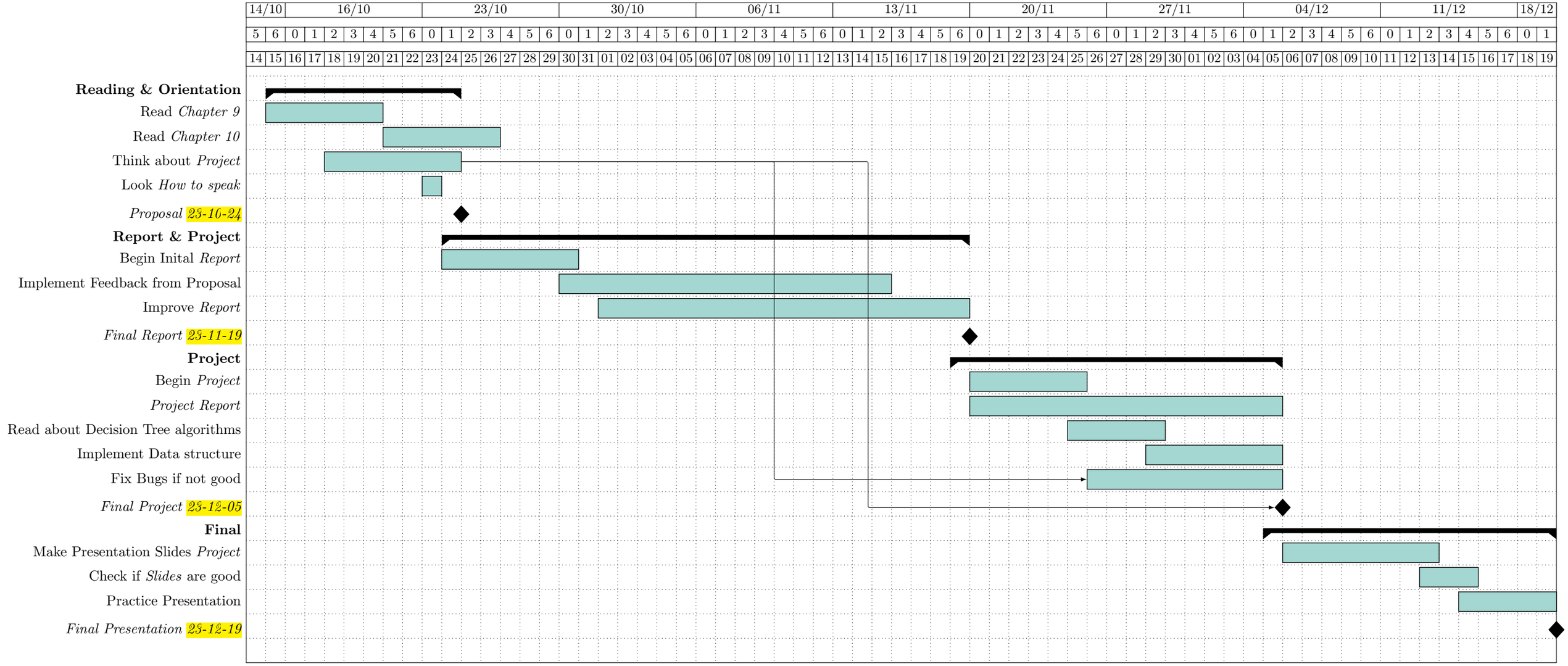
4 Project plan

Please consider our ganttchart. Just to be clear Ugur is not sure if this all is correct, please correct Ugur what is missing or wrong:

1. We have to do a Report about our chapter
2. We have to implement a project
3. We have to present both at the same date.

Can you also give us the specific date for the presentation? Such that we can update our ganttchart.


14/10
16/10
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Reading & Orientation
Read Chapter 9
Read Chapter 10
Think about Project
Look How to speak
Proposal 23-10-24
Report & Project
Begin Inital Report
Implement Feedback from Proposal
Improve Report
Final Report 23-11-19
Project
Begin Project
Project Report
Read about Decision Tree algorithms
Implement Data structure
Fix Bugs if not good
Final Project 23-12-05
Final
Make Presentation Slides Project
Check if Slides are good
Practice Presentation
Final Presentation 23-12-19