Project Plan

Group 15

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Project Overview

- CPR E 161 Discord Help Bot
    - Answers student questions
    - Helps with error processing
    - Allows students to escalate issues to professor

- Purpose:
    - Lighten load for CPR E 161 instructors
    - Give students quicker assistance

Project Management

- Agile project management methodology
  - One week sprints
- Trello board tracking
  - Tasks are moved from board to board depending on progress
  - Backlog, planned, in progress, awaiting feedback and completed
- Discord communication
  - Communicate which tasks are being worked on to prevent overlapping/extra work
  - Alert team when a task is moved to "awaiting feedback"

Task Decomposition

- Task 1: Research
- Task 2: Bot Initialization
    - Setting up the bot using Discord's developer API
- Task 3: Bot Implementation
- Task 4: Deployment Setup
    - Automatic code deployment to virtual machine
- Task 5: Internal Bot Testing
- Task 6: Reiteration
    - Fix issues from bot testing task
- Task 7: Deployment to Server
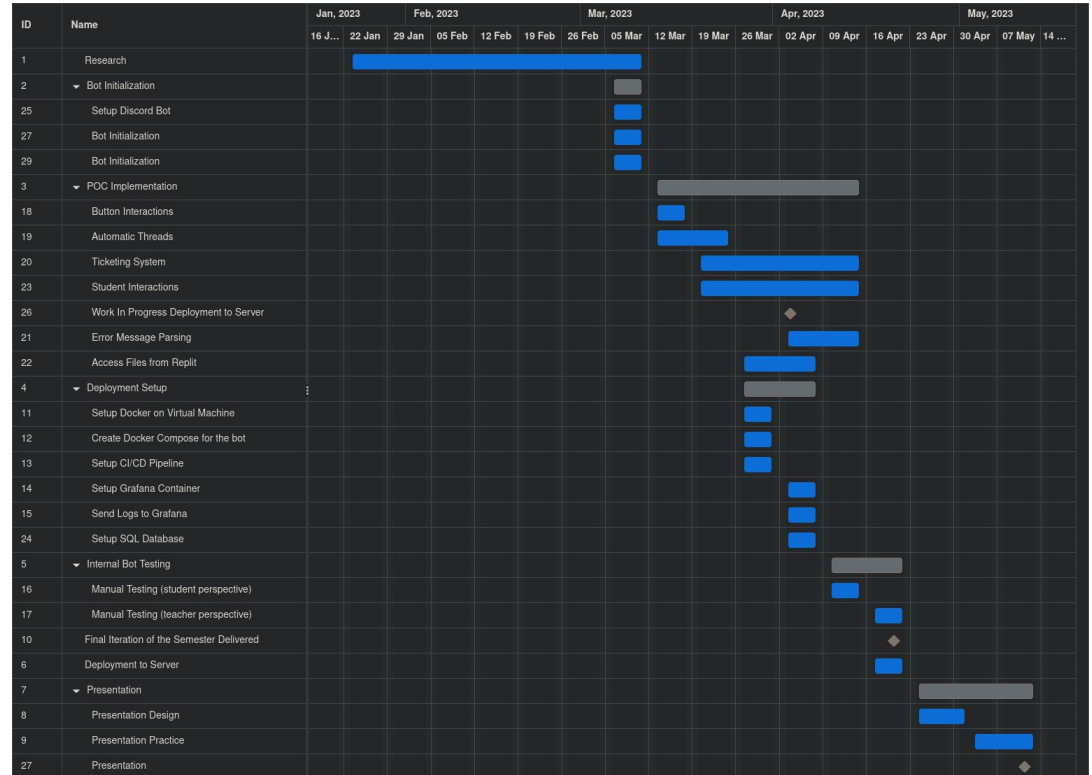
Project Milestones

- Opening and closing tickets in our ticketing system
- Being able to use threads
- Adding buttons for user interaction
- Storing ticket information for easy accessibility
- Being able to download and compile replit files.
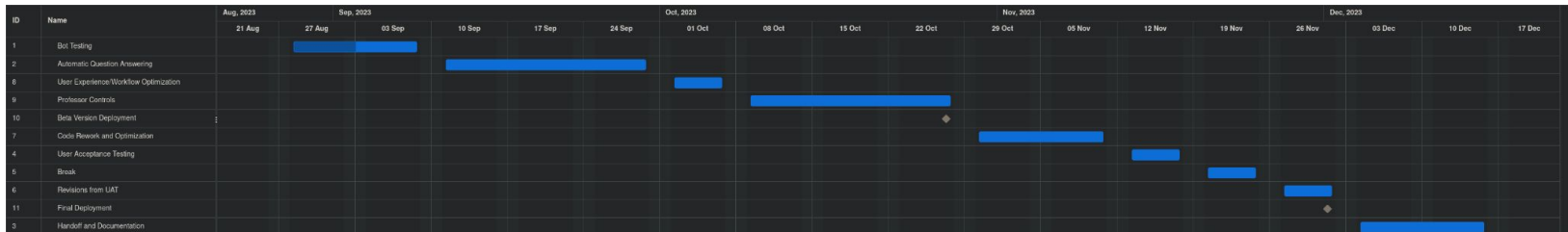- User deployment for testing

First Semester Timeline

Goals:

- Research
- Bot Initialization
- Proof of Concept Implementation
- Deployment

Second Semester Timeline

Goals:

- Develop Automatic Question Answering
- User Experience
- Code Optimization
- User Acceptance Testing
- Handoff and Documentation

ID	Name	Aug, 2023		Sep, 2023				Oct, 2023					Nov, 2023					Dec, 2023		
		21 Aug	27 Aug	03 Sep	10 Sep	17 Sep	24 Sep	01 Oct	08 Oct	15 Oct	22 Oct	29 Oct	05 Nov	12 Nov	19 Nov	26 Nov	03 Dec	10 Dec	17 Dec
1	Bot Testing																		
2	Automatic Question Answering																		
8	User Experience/Workflow Optimization																		
9	Professor Controls																		
10	Beta Version Deployment																		
7	Code Rework and Optimization																		
4	User Acceptance Testing																		
5	Break																		
6	Revisions from UAT																		
11	Final Deployment																		
3	Handoff and Documentation																		

Risk and Risk Management

- Integration with Replit
    - No Replit API available
    - Effects projects viability long term
    - Mitigated via continued development

Personal Effort Requirements - Semester 1

- Task 1: Research (60 hours)
    - Hours may change depending on bot feature addition
- Task 2: Bot Initialization (2 hours)
- Task 3: Bot Implementation (60 hours)
    - Hours may change depending on bot feature addition
- Task 4: Deployment Setup (25-30 hours)
- Task 5: Internal Bot Testing (15 hours)
- Task 6: Reiteration (10 hours)
- Task 7: Deployment to Server (10 hours)

Personal Effort Requirements - Semester 2

- Task 8: Automatic Question Answering (80 hours)
- Task 9: User Experience/Workflow Optimization (30 hours)
- Task 10: Professor Controls (50 hours)
- Task 11: Code Rework and Optimization (30 hours)
- Task 12: User Acceptance Testing (20 hours)
- Task 13: Revisions from User Acceptance Testing (20 hours)
- Task 14: Handoff and Documentation (40 hours)

Additional Resource Requirements

A virtual machine provided by the Electronic Technology Group.