**Advanced Blackjack Strategy  
Initial Project Plan**

5-30-2021 – v2.0

Connor Finch (cmf)

E. Mielke (enm)

E. Hsu (eh)

Y. Chen (yc)

**Management Plan**

Currently the plan is to break down the project into the pieces shown in the project timeline and keep in contact. This is a new kind of project for everyone involved so it may take a short period of time for each individual member to get their bearings. That being said, each member is going to tackle one module at a time and build the project to the best of our abilities according to the timeline.  
  
  
**Work Breakdown Schedule**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **May 2021** | **12** | **15** | **17** | **19** | **21** | **23** | **25** | **27** | **29** | **31** |
| **Yushu Chen**  **(Team Manager and Testing) (yc)** |  | meet cmf | meet enm |  | Testing + Meet eh | | |  | Testing | |
| **Connor Finch**  **(Project Leader & Game Logic) (cmf)** |  | Build Blackjack Game | | |  |  |  |  | Testing | |
| **Eric Hsu**  **(Blackjack Math Implementation) (eh)** |  |  |  |  | Math + Collab with cmf /enm | | |  | Testing | |
| **Edison Mielke**  **(Visual Design of Blackjack System) (enm)** |  |  | Make  Interface | |  |  |  |  | Testing | |

**Monitoring and Reporting** During the lifespan of this project we are meeting every Tuesday after class to discuss the progress of each individual work and set up next meeting time. We are going to have meeting notes just in case anyone need to review what we went through in each meeting. We are also using Discord messaging system to communicate with everyone whenever we need help with any task. Yushu is in charge to remind every group member the meeting time, and make sure everyone can appear on specific time and date. In addition, we will be expected to meet together in teams of two whenever someone doesn’t know how a module properly interacts with another module. We are always in contact during this project.

**Build Plan & Milestones**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Project Timeline** | | | | | | | | | | | | | | |
|  |  |  |  |  |  |  |  |  | |  | |  |  |  |
| **Yushu Chen(yc), Connor Finch(cmf), Eric Hsu(eh), Edison Mielke(enm)** | **Task is done** |  |  |  |  |  |  |  | |  | |  |  |  |
|  | **Notable**  **Step** |  |  |  |  |  |  |  | |  | |  |  |  |
|  | **Not Done** |  |  |  |  |  |  |  | |  | |  |  |  |
|  | **Undated**  **Task** |  |  |  |  |  |  |  | |  | |  |  |  |
|  | **Slack Time** |  |  |  |  |  |  |  | |  | |  |  |  |
| **May 2021** | **6** | **9** | **12** | **15** | **17** | **19** | **21** | | **23** | **25** | | **27** | **29** | **31** |
| **Tasks** |  |  |  |  |  |  |  | |  | |  |  |  |  |
| **Project Plan (eh)** |  |  |  |  |  |  |  | |  | |  |  |  |  |
| **SRS (cmf)** |  |  |  |  |  |  |  | |  | |  |  |  |  |
| **SDS (enm)** |  |  |  |  |  |  |  | |  | |  |  |  |  |
| **Create Blackjack**  **Game (cmf)** |  |  |  |  |  |  |  | |  | |  |  |  |  |
| **Betting System**  **(cmf, eh)** |  |  |  |  |  |  |  | |  | |  |  |  |  |
| **Create Card/Deck Visual Interface (enm, yc)** |  |  |  |  |  |  |  | |  | |  |  |  |  |
| **Basic Strategy System (enm)** |  |  |  |  |  |  |  | |  | |  |  |  |  |
| **Betting Deviation System (eh)** |  |  |  |  |  |  |  | |  | |  |  |  |  |
| **Card Counting System (cmf)** |  |  |  |  |  |  |  | |  | |  |  |  |  |
| **Testing (cmf, yc)** |  |  |  |  |  |  |  | |  | |  |  |  |  |
| **Blackjack Game Simulation (cmf)** |  |  |  |  |  |  |  | |  | |  |  |  |  |
| **Project Plan Final Revision (eh)** |  |  |  |  |  |  |  | |  | |  |  |  |  |
| **SRS Final Revision**  **(cmf)** |  |  |  |  |  |  |  | |  | |  |  |  |  |
| **SDS Final Revision**  **(enm)** |  |  |  |  |  |  |  | |  | |  |  |  |  |

**Milestones:**

* Basic Blackjack game logic built. (5/17)
* Blackjack Betting System implemented. (5/19)
* Created a user interface such that blackjack is actually playable. (5/23)
* Implemented the betting system within the user interfaced blackjack. (5/23)
* Programmed odds and card counting logic. (5/17)
* Created the main teaching system. (5/23)
* Implemented odds and card counting logic into the main teaching system. (5/23)
* Tested for outlying issues. (5/29)
* Revise documents. (5/30)
* Final System examined and determined ready for release. (5/31)

**Meeting Notes:**

**-5/11/2021**

Met and discussed about the initial documents and make changes.

**-5/18/2021**

Met and discussed the current state of the assignment and how to proceed. Assigned jobs. An additional meeting on 5/20.

**-5/20/2021**

Make sure everyone knows what their tasks are. See if we need to make any adjustment about work contributions.

**-5/25/2021**

Some group members are busy today, so we rescheduled the meeting to 5/27.

**-5/27/2021**

Discussed about strategy system. Found out we have misunderstanding about the system. Made

adjustments.

**-5/30/2021**

Unit testing. We made sure our program can run and get valid output. Updated documents.

**-5/31/2021**

Updating documents further, making sure everything is consistant between documents.

In addition, Visualization of the project is causing issues so we may have to crunch an alternative method.

**-One on One short meeting:**

Eric and Connor met and talked about betting system.

Edison and Connor met and talked about basic strategy.

Yushu and Edison met and talked about card and deck visual interface.

Yushu and Connor talked about visualization module.

**Rationale for the Build Plan:**

The build plan is set up such that we build a very basic version of the system and build bits and pieces at a time. That isn’t unique by any means but that’s a tried and true technique to building a proper product. The build plan / milestones are accounting for miniscule changes such as adding math aspects to the game or building up the GUI for the game at hand. We are mitigating our risks by staying communicative and making sure we’re constantly staying on schedule where we can.