**Advanced Blackjack Strategy  
Initial Project Plan**

5-12-2021 - v1.0

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 constantly in contact using the Discord messaging system. Using this we are constantly updated on how far we’ve come along, Yushu is in charge of us meeting on Voice chat at least every three days and reserves the right to contact us more if need be. 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 constantly in contact during this project

**Build Plan & Milestones**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Project Timeline** | | | | | | | | | | | | |
| **May 2021** | **6** | **9** | **12** | **15** | **17** | **19** | **21** | **23** | **25** | **27** | **29** | **31** |
| **Tasks** |  |  |  |  |  |  |  |  |  |  |  |  |
| **Project Plan** |  |  |  |  |  |  |  |  |  |  |  |  |
| **SRS** |  |  |  |  |  |  |  |  |  |  |  |  |
| **SDS** |  |  |  |  |  |  |  |  |  |  |  |  |
| **Create Blackjack Game** |  |  |  |  |  |  |  |  |  |  |  |  |
| **Betting System** |  |  |  |  |  |  |  |  |  |  |  |  |
| **Create Card/Deck Visual Interface** |  |  |  |  |  |  |  |  |  |  |  |  |
| **Basic Strategy System** |  |  |  |  |  |  |  |  |  |  |  |  |
| **Betting Deviation System** |  |  |  |  |  |  |  |  |  |  |  |  |
| **Card Counting System** |  |  |  |  |  |  |  |  |  |  |  |  |
| **Testing** |  |  |  |  |  |  |  |  |  |  |  |  |
| **Blackjack Game Simulation** |  |  |  |  |  |  |  |  |  |  |  |  |
| **Multiple Players in Blackjack Game** |  |  |  |  |  |  |  |  |  |  |  |  |
| **Project Plan Final Revision** |  |  |  |  |  |  |  |  |  |  |  |  |
| **SRS Final Revision** |  |  |  |  |  |  |  |  |  |  |  |  |
| **SDS Final Revision** |  |  |  |  |  |  |  |  |  |  |  |  |

**Milestones:**

1. Basic Blackjack game logic built.
2. Blackjack Betting System implemented.
3. Created a user interface such that blackjack is actually playable.
4. Implemented the betting system within the user interfaced blackjack.
5. Programmed odds and card counting logic.
6. Created the main teaching system.
7. Implemented odds and card counting logic into the main teaching system.
8. Created the main “challenge” system.
9. Implemented those systems into the main interfaced blackjack.
10. Tested for outlying issues.
11. Final System examined and determined ready for release.

**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 is 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.