Advanced Blackjack Strategy
Initial Project Plan

5-31-2021 – v2.0
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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 the next meeting time. We are going to have meeting notes just in case anyone needs to review what we went through in each meeting. We are also using the Discord messaging system to communicate with everyone whenever we need help with any task. Yushu is in charge of reminding every group member the meeting time, and making sure everyone can appear on a 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 with an hour at most to respond to any queries between group members.

Build Plan & Milestones

Project Timeline														
Yushu Chen(yc) **Connor Finch(cmf)** **Eric Hsu(eh)** **Edison Mielke(enm)**														
Task is done														
Notable Extra Step														
Not Done														
May 2021	6	9	12	15	17	19	21	22	23	25	26	27	29	31
Tasks														
Project Plan (eh)	🟥	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩
SRS (cmf)	🟥	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩
SDS (enm)	🟥	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩
Create Blackjack	🟥	🟥	🟦	🟦	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩

Task	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Game (cmf)	red	red	blue	blue	green	green	green	green	green	green	green	green	green	green
Betting System (cmf, eh)	red	red	red	blue	blue	green	green	green	green	green	green	green	green	green
Create Card/Deck Visual Interface (enm, yc)	red	red	red	red	red	red	blue	blue	green	green	green	green	green	green
Basic Strategy System (enm)	red	red	red	red	red	green	green	green	green	green	green	green	green	green
Betting Deviation System (eh)	red	red	red	red	red	green	green	green	green	green	green	green	green	green
Card Counting System (cmf)	red	red	red	red	green	green	green	green	green	green	green	green	green	green
Testing (cmf, yc)	red	red	red	red	red	green	green	green	green	green	green	green	green	green
Blackjack Game Simulation (cmf)	red	red	red	red	red	red	red	red	green	green	green	green	green	green
Project Plan Final Revision (eh)	red	red	red	red	red	red	red	red	red	red	red	red	green	green
SRS Final Revision (cmf)	red	red	red	red	red	red	red	red	red	red	red	red	green	green
SDS Final Revision (enm)	red	red	red	red	red	red	red	red	red	red	red	red	green	green

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 the initial documents and made 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 consistent between documents.

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

-One on One short meetings:

Eric and Connor met and talked about the 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 the 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.