**The Design Document – Programming – Project 2**

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| Game Genre |

The Blackjack genre is of a Strategy Card Game. The game was first referenced in1601 and 1602. The best game I found I could reference my project was Casino Blackjack which can be bought on Steam.

The differences between my game and Casino Blackjack are:

* My Game will not have Betting while Casino Blackjack Does
* The visual difference is stark as well, my game will mainly be text based while Casino Blackjack has a lot of assets (images) for visual aid and player enjoyment.
* The variables can be changed in Casino Blackjack for the likes of the card values, 2 of spades would normally be 2 points but in casino Blackjack the player is free to change the value to 10 or 0.
* Casino Blackjack also offers a bot multiplayer option which will not be available in my game.

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| Game Features |

These are the list of features that my game will have:

* There will be the start screen which will have a button for the player to press and start the game.
* When the game starts, the player and the dealer will have 2 cards in the beginning of the game.
* There will be 2 buttons, ‘Hit’ or ‘Stand’ that the player can press.
* The ‘Hit’ button will grant the player another card, if the player goes over 21 points then its game over, if the player gets 21 points exactly he / she automatically wins or if the player gets under 21 points then he / she can decide to hit / stand again.
* When the player clicks the stand button, the dealer reveals his cards and then compares their total to the players total, if the dealers total exceeds that of the total of the player then the player wins even if both the dealer and player are under the 21-point limit.
* If the dealer gets over 21 points then the player automatically loses, if the dealer gets over 21 points then the dealer automatically loses.
* There will be a game over screen and a button that’s says ‘Restart’ that the player can click and start the game over again.
* The player cards will be laid out on the bottom of the screen while the dealers cards will be laid down on the top of the screen

**Extra Functionality:**

* There will be a background Sprite
* Betting will be included into the game.
* There will be a deck of Cards

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| Game Story Boards |

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| **Main Menu** | **Game Screen** |
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| **Game screen extra cards** | **Loose Screen** |
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| **Win Screen** | **Game Screen with pressed buttons** |
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| **Game Class Diagram** |

Class Game {

**//Data Members**

**sf::RenderWindow** window;

**sf::Font** m\_font;

**sf::Text** m\_message; // text to write on the screen

**sf::Texture** backGroundTexture;

**sf::Sprite** backGroundSprite;

**Player** player; //Object Declaration

**Dealer** dealer; // Object Declaration

**Cards** cards; // Object Declaration

**//Methods**

Game ();

Void loadContent ();

Void run ();

Void update ();

Void render ();

};

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| **Card Class Diagram** |

Class Cards {

**//Data Members**

Sf::text card; //Stores the value and the name of the card

**//Methods**

getCard ();

};

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| **Player Class Diagram** |

Class Player {

**//Data Members**

**//Methods**

};

|  |
| --- |
| **Dealer Class Diagram** |

Class Dealer {

**//Data Members**

**//Methods**

};