

Group Name: Kingslayers

Group Members: 3

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Project Idea

When we formed our group, we basically had few options for our project.

- Flappy Bird Game (Sirjandeep)
- Black Jack Game (Kush)
- Fitness Tracker App (Kush, Nil)
- Word Guess Game (Kush)
- Hangman Game (Nil)

Black Jack game was not fitting properly as per our logic behind the making of the game and the game needs more coding because we need to show everything like how the deck of cards is used by the dealer and the player who is playing the Black Jack game and also it is tough to show how the card is randomly picked with the animations through coding. So, on the first note, we remove the idea of Black Jack game from our mind.

We do not want to make the Word Guess game because it did not fit properly as per our project instructions.

We came up with the idea of making a Fitness Tracker App, but the main point was we needed to create the database for the app which basically uses the

MySQL, and we only have to create our project with the help of JavaFX, and also it should have taken so much time for our project, so we rejected that idea.

The Hangman game can be created through coding and logic in the console/output of any software like VS Code, IntelliJ Idea Community Edition. We have to create our project in the GUI, because of this reason we rejected the Hangman game idea.

Finally, the last option we had, and we decided to make the Flappy Bird Game because the game fits as per the project instructions and we also had a plan going in our mind to make Flappy Bird Game in the group so that's why we choose to have this game in our project.

Unfortunately, the professor approved our idea, but he told us to make something creative and not to include the same design as Flappy Bird. So, we came up with the idea of making Droopy Chopper which is inspired from the game Flappy Bird.

As we have the idea of what we are making in the project, we are thrilled to show the user how we make it happen.

- 1) The Intro Screen from where the user can start the game.
- 2) Credit Screen for the user to know who has developed the game and what are the assets that had been used for making the game.
- 3) Main Game Screen where the user will play the actual game.
- 4) Sound Effects and sound toggle button to on/off the sound of the game.
- 5) File/IO to store the score of the user.

The assets that we needed for making the game:

- Title image text
- Background images
- Floor image
- Chopper gif
- Ready text image for the user to know if the user is ready to play or not

- Developer Icon for the credit screen
- Start/Exit buttons with the key instructions.
- Score Calculator for the user to know his/her score in the game.
- Mute/Unmute Button images to turn on/off the sound of the game.
- Obstacle images (Bottle Jars) to pass the chopper for scoring the points.
- Game Over image text if the user crashes the chopper in the obstacle.

Audience

The main audience for this game is teenagers and adults. We recommend the age 7 and above. Understanding the target audience ensures the design of the software is simple, intuitive and visually appealing, catering to casual and younger gamers. The game should be optimized for performance on personal computers, feature easy-to-learn controls, and provide immediate announcements to keep players engaged in the game.

Challenging Task

The feature we felt might be challenging for us was to create a condition where chopper is trying to pass the obstacles with specific speed and velocity. And to show the text images of Get Ready and Game Over in a precise and proper manner whenever user starts the game and ends the game on crashing the chopper in the obstacles.

Overall Project Criteria

- Must Contain Intro Screen (With Animations) – The screen will display the welcome message when the game is first loaded including the animation of Droopy Chopper Text, Chopper GIF, Start and Exit Buttons along with the Key Event instructions.

- Must Contain Credit's Screen – The main game screen have the developer's icon located at the top right corner of the main game screen.
- Must utilize object-oriented programming – Yes, Object Oriented Programming is utilized for the different assets we are displaying in the game
- Must have appropriate documentation and utilize Javadoc comments – Yes, the project will have appropriate documentation and comments in the code.
- Must utilize multiple events and event handling – Spacebar button will be used to navigate forward the chopper in the game and ESC button will be used if the user wants to quit the game.
- Must utilize the Color class – We have used the color in the design of the game.
- Must utilize a GUI using JavaFX – GUI is used for the intro screen, main game screen and game credits screen.
- Must utilize multiple different panes – Yes, we have used the multiple panes for the game.
- Must contain multiple scenes – Yes, we have used the multiple scenes to handle the intro screen, main game screen and credits screen
- Must contain multiple stages – Yes, we have used the multiple stages to handle intuitive different screens.
- Must contain images (*made by yourself or creative commons*) – We have created background images, title text image, get ready text image, game over text image, floor image, obstacle image (bottle jars) using Canva.
- Must utilize fonts and font styling – We have utilized fonts and fonts styling for the different screens.

- Must utilize FILE/IO – We have utilized File/IO for storing the user's score every time user starts playing the game.
- Must utilize animations – We have utilized the animations for intro screen and credit screen.
- Must utilize audio clips – We have used different background sound in the intro screen, main game screen and credit screen.
- Provide documentation supporting the choices you made in your overall design of your software – Microsoft Word or PDF Document.
- Must be complete (End to End the software needs to function) – Yes
- Working together as a group, providing documentation of what work you completed as individuals – Weekly Project Journals

Droopy Chopper Tools

- 1) IntelliJ Idea Community Edition
- 2) JDK Gradle
- 3) For images, sound and icons: Flaticon, Pixabay, Canva, Opengame Art, Icon8

Brief Introduction About The Several Screens of the Game

Screen 1: Intro Screen

The Droopy Chopper intro screen features the chopper GIF and easy-to-use start and exit buttons. To start the game the user needs to press the spacebar key and to quit the game user needs to press the ESC key.

Screen 2: Main Game Screen

The user presses the spacebar key and is directly navigated to the main game screen. The user will see the 'Ready' message to start the game. The main game screen features the score calculator located at the top left corner, developers' icon to display the credit screen located at the top right corner and the sound mute/unmute toggle button if the user wants to turn on/off the background sound located just below the developer's icon.

To play the game, instructions are pretty simple for the user. User must press the spacebar to navigate and control the chopper forward between the up and down obstacles (Bottle Jars).

The user must begin the game from the score count zero. Points are earned by passing through the obstacles with the game continuing until the chopper crashes. The score is automatically counted and displayed at the top left corner of the game screen if the user passes through the obstacle.

If the user crashes the chopper in the obstacle, the game will display the 'Game Over' message and the user needs to restart the game again by pressing the spacebar key and if the user wants to quit the game simply press the ESC key to quit the game. If the user restarts the game, the game will display the score count zero, and this cycle continues indefinitely.

Just below the developer's icon, there is the sound mute/unmute toggle button if the user wants to turn on/off the background sound.

At the bottom of the screen, there is the looping floor image that moves continuously while the chopper is steady which means that the game is not started yet and also while the game is being played, creating a natural animation effect.

Screen 3: Credit Screen

If the user presses the developer's icon which is located at the top right corner of the main game screen, it will basically open the credit screen and the user gets to know about who the developers behind this game are. Along with the developer's credit, this screen will display all the sources and assets used behind making this game possible.