GoGator

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Version: 1.0

Overview

GoGator draws inspiration from the action arcade game Frogger but with a University of Florida twist. The player will control Albert, a gator student at UF who was trying to get to campus, but dropped his backpack and his belongings all along Archer road. The player must help him collect his belongings while also avoiding the cars and buses driving along the road.

Game Description

- Objective -- Avoid obstacles to stay alive and increase your score by obtaining as many collectibles as possible. The goal is to beat the high score.
- Gameplay -- The player will be playing as Albert, a University of Florida gator who wants to go to campus, but dropped his backpack and his belongings (laptop, pizza, pasta, hotdog, icecream, paper, headphones, hydroflask, phone, and calculator) are now scattered on Archer Road. When the player enters the game, they are faced with the main menu where they have the choice between exiting the game and two modes of gameplay. Easy mode, cars going at a regular speed that will provide the user with a challenging experience getting across the map, and rush hour mode, where all obstacles will be moving significantly faster to induce greater challenge. Once the game starts the player will be able to move Albert up, down, left, and right along the screen/map. This map consists of 6 lanes with a safe zone median in the middle. The player will initially start in the median and will have to move around the map trying to collect Albert's various belongings that are on the road. At the same time, the player must keep Albert safe from oncoming traffic (cars and RTS buses). The median between the 6 lanes provides a location where Albert can safely rest and plan his next moves. However, the player must move fast because Albert's belongings will only stay in their location for a specific amount of time before they disappear and his objects appear in another location on the road. If Albert is hit by a vehicle, the player loses and they are given the option to restart the game. There is no explicit win condition. The player's goal should be to get as high of a score as possible which they can do by continuing to restart/play the game and obtain collectibles. Every time Albert dies the player's current score resets to the default of zero but their high score will continue to be saved in a text file allowing the player to return to the game to beat their score whenever they want. Both easy and rush hour modes will have their own highscore.
- Controls -- The main menu is navigated using the mouse to press either the "easy" mode, "rush hour" mode, or "exit" buttons. The player controls Albert in the game by using the arrow or "wasd" keys to move up, down, left, and right. The "tab" and "enter" keys will be used to navigate pausing and/or continuing the game. The controls associated with pausing/continuation of the game are clearly stated and written out to avoid user

confusion. Additionally, the player is alerted when Albert has died or when a new high score has been reached.

Assets Used

- Images were created/drawn by Milo Duty
  - Backgrounds/menus
    - gogator_menu.png
    - gogator_road.png
    - key_menu.png
  - Albert
    - albertSprite_Down.png, albertSprite_Up.png, albertSprite_Left.png, albertSprite_Right.png
  - Obstacles (each obstacle's "..._flipped.png" iteration was used as well)
    - bluecar.png, greycar.png, redcar.png, whitecar.png
    - bussprite.png
  - Collectibles
    - calculatorsprite.png, computersprite.png, friessprite.png, headphonesprite.png, hotdogsprite.png, hydroflasksprite.png, icecreamsprite.png, papersprite.png, pastasprite.png, phonesprite.png, pizzasprite.png
- Sound files
  - Sound files were downloaded from the https://freesound.org/ website
  - Sound files used:
    - backgroundMusic1.wav – used when the player enters the main menu
    - backgroundMusic2.wav – used when the player is controlling albert
    - backgroundMusic3.wav – used when Albert dies and the player must decide whether to continue or end the game
    - albertDeath1.wav – used when albert gets hit by an obstacle/vehicle
    - collectChomp.wav – used when albert obtains a collectible

User Menu

1. Choose between "easy" and "rush hour" mode
2. Use the "up"/"w", "down"/"s", "left"/"a", and "right"/"d" arrows/keys to move Albert around
   a. Collect Albert's belongings
   b. Avoid cars and buses
   c. Use the median between the lanes as a safe zone
3. Try to beat your own high score!
4. If Albert is hit by a vehicle, you can just restart Albert's adventure and continue playing

      a. Your high score will be saved so you can always exit the game and come back to it later

Difficulties

- There were issues with Albert's sprite being too big and occasionally looking like it should have gotten hit and resulted in Albert's death. To overcome this, we adjusted the size of the sprite and also had to fix the hitboxes to accommodate Albert's new size.
- We also had some issues with the high score files and later learned that if a player wants to completely restart their game's progress they need to edit the text file to say zero instead of just deleting the score and leaving an empty text file.

User Manual Screenshot

GoGator Instruction Manual

Objective: Avoid obstacles to stay alive and increase your score by obtaining as many collectibles as possible. The goal is to beat the high score.

Gameplay: The player will be playing as Albert, a University of Florida gator who wants to go to campus, but dropped his backpack and his belongings (laptop, pizza, pasta, hotdog, icecream, paper, headphones, hydroflask, phone, and calculator) are now scattered on Archer Road. Once the game starts the player will be able to move Albert up, down, left, and right along the screen/map. This map consists of 6 lanes with a safe zone median in the middle. The player will move around the map trying to collect Albert's various belongings that are on the road. At the same time, the player must keep Albert safe from oncoming traffic (cars and RTS buses). The median between the 6 lanes provides a location where Albert can safely rest and plan his next moves. However, the player must move fast because Albert's belongings will only stay in their location for a specific amount of time before they disappear and his objects appear in another location on the road.

There are two modes of gameplay. Easy mode, cars going at a regular speed that will provide the user with a challenging experience getting across the map, and rush hour mode, where all obstacles will be moving significantly faster to induce greater challenge. Both modes will have their own highscore.

Win/Lose Conditions: If Albert is hit by a vehicle, the player loses and they are given the option to restart the game. There is no explicit win condition. The player's goal should be to get as high of a score as possible which they can do by continuing to restart/play the game and obtain collectibles. Every time Albert dies the player's current score resets to the default of zero but their high score will continue to be saved in a text file allowing the player to return to the game to beat their score whenever they want.

Controls: The main menu is navigated using the mouse. The player controls Albert by using the arrow or "wasd" keys to move up, down, left, and right. The "tab" and "enter" keys will be used to navigate pausing and/or continuing the game.

High Scores: The high scores for easy mode and rush hour mode are stored in an easy mode file and a rush mode file respectively. To reset the stored high score, open the corresponding file, and change the score to 0. DO NOT leave it blank, this will not work.

Roles and Responsibilities of Each Team Member

Task:	Kyle	Milo	Evan	Niloufar
Images	I	R	I	I
Sounds	I	I	I	R
User Manual	I	I	C	R
Final Report	C	I	I	R
Game Demo Video	C	C	C	C
Albert Class	C	C	R	I
Collectables Class	I	C	R	I
Vehicles Class	R	C	R	I
GoGator Main Pde File	C	I	R	C
File I/O Implementation	R	I	I	I
Debugging	C	C	R	C