

Buck-Man User Manual

Buck-Man, developed by Nick Zhang, Jane Yan, Aiden Brewer, Rachel Milio, and Emily Eggers is an homage to the classic Namco arcade game Pac-Man, inspired by Bucknell University. Similar to the original Pac-Man, users navigate through a maze where they must eat pellets to gain points while avoiding the game's villains who also traverse the screen. Our intent, however, in developing this game, was to take the easily recognizable Pac-Man game aesthetic and alter it to instead pay tribute to Bucknell.

In order to achieve this, all of the menus are blue and orange, Bucknell's school colors. Furthermore, instead of playing as Pac-Man, a yellow circle, players play as Bucky the Bison, Bucknell's mascot. Additionally, the levels are set in familiar Bucknell settings (Level 1 is the Malesardi Quadrangle, the center of Bucknell, and Level 2 is inside Bertrand Library, a place where Computer Science students at Bucknell spend a lot of time). Lastly, the villains of the game, which in the original Pac-Man are four multi-colored ghosts, were playfully chosen to be several Bucknell authority figures: Chris Dancy, the instructor of CSCI205; Patrick Mather, the Dean of Engineering; Amy Badal, the Dean of Students; and John Bravman, the President of the university. Beyond the aesthetic changes, Buck-Man is played the same way Pac-Man is played.

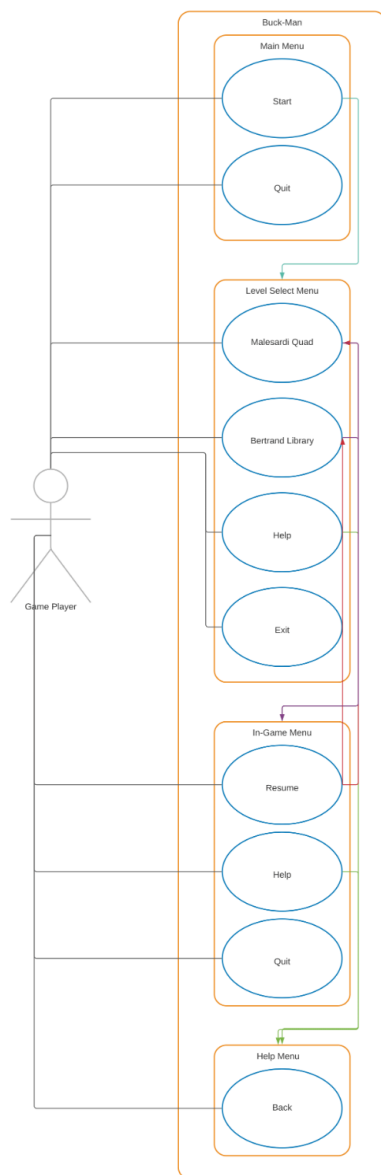
Background and Motivation:

In order to create the game, our team did research into the original Pac-Man and how other Java developers have attempted to recreate it. Through our research, we settled on a series of necessary objectives for game function, as well as some additional aesthetic goals to improve the game's playability.

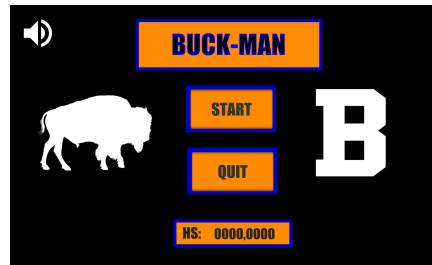
Pac-Man is made up of three primary components: the Pac-Man character, the ghosts, and the maze levels. The Pac-Man character is moved by the user (while Pac-Man originated on an arcade machine with a joystick, our game is meant to be played on a PC, so we chose to use the arrow keys and WASD keys up to user preference). The ghosts move independently through the maze level, and if the ghosts come into contact with Pac-Man, the user will lose a life. The maze has walls that are impassable by the user's character, and circular pellets that Pac-Man eats by passing through them, therefore increasing the user's score.

Based on this game design research, we established our User Stories. Upon starting the game, users are greeted with a Title Screen that prompts them to either start the game or quit. If

they choose to start, users view the Level Select Menu and choose between Malesardi Quad and Bertrand Library. Once in a level, users view a maze set on a backdrop of the selected Bucknell location. They can see and move the Bucky character, and cannot traverse through the walls of the maze. They can also see the villains of the game, the four Bucknell figures, which will move throughout the maze as well. Users start the game with three lives and a score of zero. Running into the circular pellets that fill the maze will increase the user's score, and running into one of the villains will decrease their score by one. The user's score and life count are displayed during the level. If the user presses ESC, they are taken to an in game menu with a help menu and an option to quit and exit the game.

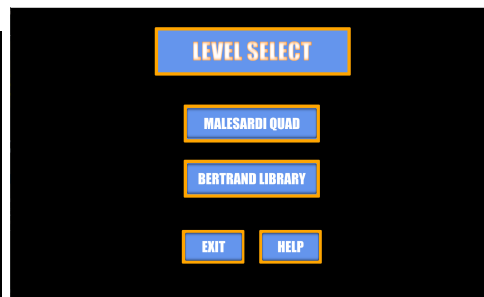
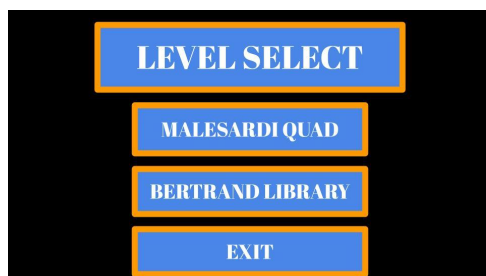


Instructions:



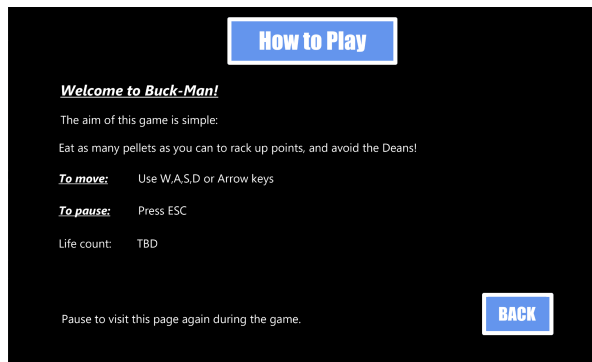
Title Screen Mock-Up and Actual

Users use mouse to click on “Start” to begin the game, “Quit” to terminate the program

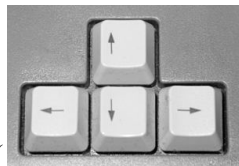


Level Select Menu Mock-Up and Actual

Users use mouse to click on the level title they want to play, or “Help” to see game instructions



Help Menu - explains the rules of the game.

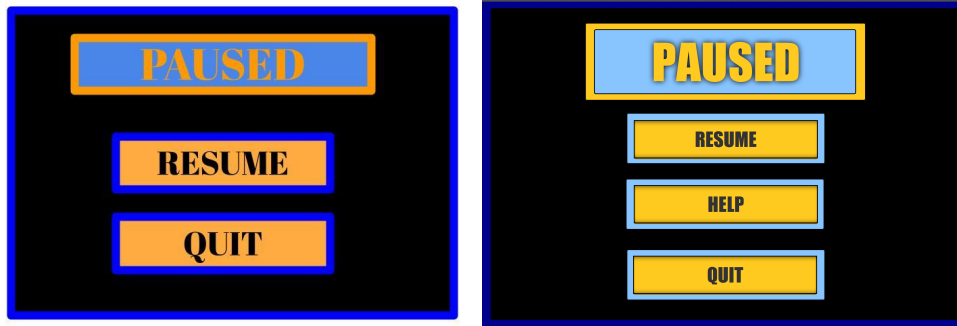


Use the arrow keys () or WASD keys to move Bucky.

Life count is 3.

Collecting a pellet in game increases user’s score by 10.

Running into a villain removes one life.



Ingame menu Mock-Up and Actual

Menu triggered by pressing “ESC” during a level.

Pressing “Resume” unpauses the game where user left off

“Help” brings user to the Help Menu

“Quit” terminates the game.

Works Cited

Wikipedia contributors. "Pac-Man." *Wikipedia, The Free Encyclopedia*. Wikipedia, The Free Encyclopedia, 15 May. 2021. Web. 18 May. 2021.

"30th Anniversary of PAC-MAN." Google Doodle, 21 May 2010.