PLATFORM GAME

CLOUDBURST

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GAME DESCRIPTION

This program takes the user's inputs and moves the main character, Dewey, around the window as he gradually moves vertically from platform to platform while avoiding the flooding rise of the water from underneath him. The highest altitude that can be reached is above the clouds, hence the name of our game. The game is technically only one level, but the background illustration changes environments as Dewey moves up through the atmosphere, jumping from cloud to cloud and thus indicating a "change" in level. This program generates random cloud platform boards throughout the map vertically for Dewey to jump on. Being that they are clouds, it only made sense that Dewey is also able to jump through them to reach another. Dewey must avoid touching the flooding water or else the game will come to an end.

TECHNOLOGIES & COMMUNICATION

We chose to use Java and Swing to create our platform game. Admittedly, we didnt start committing to Github until the very end of the project timeline. However, our group did start working on Cloudburst a considerable amount of time before then. Most of our communication was done through group text messaging or Skype video calls while most of our exchanging of files took place between personal email accounts. As a whole, we never met up but a couple of us did get together here and there to work together and provide feedback when another pair of eyes was deemed necessary.
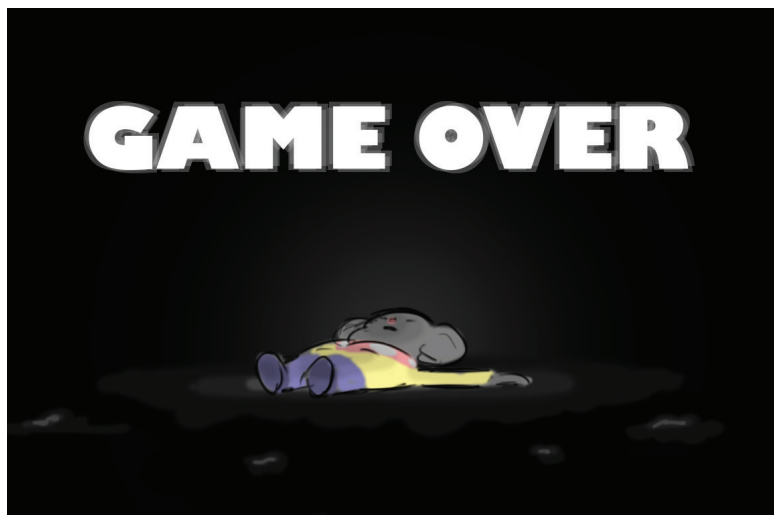
DEWEY'S DEVELOPMENT

Original Concept:

We took the concept and reflected it to utlize the image for Dewey's left and right profile views.

START & END SCREEN DEVELOPMENT

After we came up with a concrete idea for the main character, our next obstacle was to move forward with the design of the Start and End Screens. We loved the idea of Dewey's tail wrapped around the umbrella in the first production of the start screen but found that we like how the second production of him was drawn a lot better and with more detail. As a team we decided to proceed with the second production for the sake of time. Later on we added the "Press f2 to start" and "Press escape to quit" buttons. If the user is unsuccessful in completing the game, the last image unfortunately appears.

NEXT STEP: BACKDROP

As mentioned in the description, our program technically has one level and is programmed as such. Instead, our designers chose to further utilize the backdrop to signify once the user reaches a certain level. There are three levels delineated on the right hand side of the screen as the user gradually makes Dewey move up vertically towards the top most part of the atmosphere.
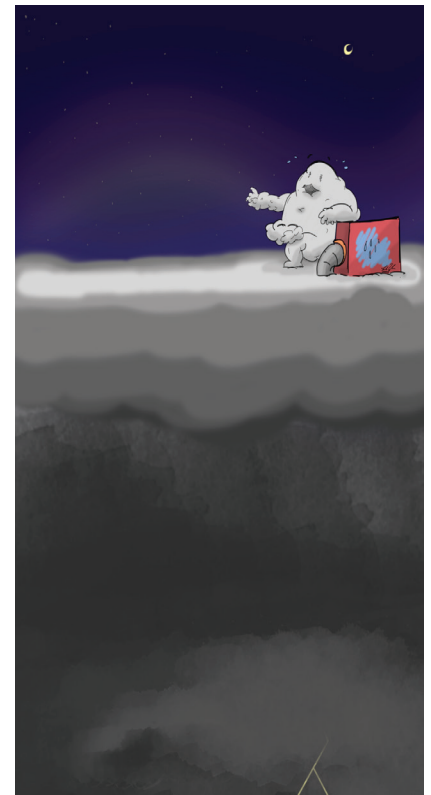
ROUGH OUTLINE:

CloudBurstPanel
> CloudBurstGame Class
> StartFrame Class
> GameMain Class

GAMESTATEMANAGER
> GameState Class
> CurrentGameState Class
> StartState Class
> LevelBeginState Class
> Gameover Class

ELEMENTS
> HomeScreen Class
> User Class
> MainCharacter Class
  - isTouchingPlatform Class
  - isTouchingWater Class
> Water Class
  - RisingWater Class

USER CONTROLS:

SPACEBAR:
  Makes Dewey jump

LEFT ARROW KEY:
  Dewey faces & moves left

RIGHT ARROW KEY:
  Dewey faces & moves right

Dewey
+movement facing right
+movement facing left
+collision detection

Platform
+score: int
+random width: int
+fixed height: int

mDewey
(from ObjectDiagram1)
+run
+jump
+moveLeft
+moveRight
+die