2022CS11105   2022CS11633

Bhyri Siddhartha Roy   Mudavath Sai Nikhil

MOTIVATION:

In our endeavor to develop a game centered around the theme of political accountability, we recognize the foundational importance of responsibility within society. A key tenet of this principle is the notion that individual well-being is intrinsically tied to the health and happiness of the collective. To cultivate a thriving societal ecosystem, two primary facets demand attention: the creation of a pollution-free environment and the cultivation of an accountable governmental framework conducive to national development.

Addressing the imperative of environmental sustainability necessitates the conscientious management of waste materials, which are significant contributors to pollution. By imparting knowledge and practical skills related to waste classification and recycling methods, individuals are empowered to actively mitigate environmental degradation, fostering a cleaner and healthier habitat for all.

Simultaneously, the quest for effective governance hinges upon the selection of responsible and capable leaders. In this context, the game aims to educate participants on the electoral process, equipping them with the understanding and discernment required to make informed choices devoid of undue influence or manipulation. By fostering civic awareness and promoting ethical engagement in the political sphere, the game endeavors to cultivate a generation of conscientious citizens poised to contribute positively to societal progress.

In India, a prevalent lack of awareness regarding waste classification often results in indiscriminate disposal of waste onto roads and into surrounding areas. Despite this, municipal authorities provide designated dustbins for the segregation of waste based on its type, including organic waste, medical waste, hazardous waste, and recyclable waste. Recognizing the critical need to address this issue, we developed a game aimed at educating players about the various types of waste and the corresponding color-coded dustbins for proper disposal.

Furthermore, in the realm of governance, there exists a vital need to cultivate informed and active citizenship. To this end, we designed a game simulating the voting process, thereby immersing players in a virtual environment where they can engage in casting their votes for upcoming elections. Through this interactive experience, players gain practical insights into the electoral process, empowering them to make informed decisions and participate meaningfully in shaping the future of their community and nation.

GAMIFYING THE CAUSE:

In the game,player when started is given two options to choose a game. The first option is to classify the waste in accordance to the dustbins. Waste is pushed on a conveyor belt and there are four dustbins present and at the end of the conveyor belt and the player is supposed to click on the dustbin so that the waste falls into it. so in this way player gets to know about waste management and is awarded score based on his performance. we tried to include levels of difficulty for the speed of the items on the conveyor belt. the higher the difficulty the greater the speed of the waste on the conveyor belt.

The second game is a simulation for voting process in elections. Player is required to interact with the character in the game using mouse and keyboard. Using arrow keys player moves the character in the game and follows the instructions accordingly and the character in the game is involved in the elections. so player gets an idea on how elections take place and might become responsible because of the interest in this field. We tried to implement points for the player in the game based on his decisions. like for example we tried to include electoral bribery and if the player accepts it then his social accountability decreases. but this was not possible due to time constraints.

The language we choosed is python and the library we choosed to use is pygame which is a wrapper of SDL in python.

ASSESTS USED:

All the assets used in the election simulation are designed using tiled application in which we can create an asset by deciding the color of each pixel and filling it.Meanwhile some standard equipment like ballot unit,vvpat are used from the intenet. Some examples are shown below:
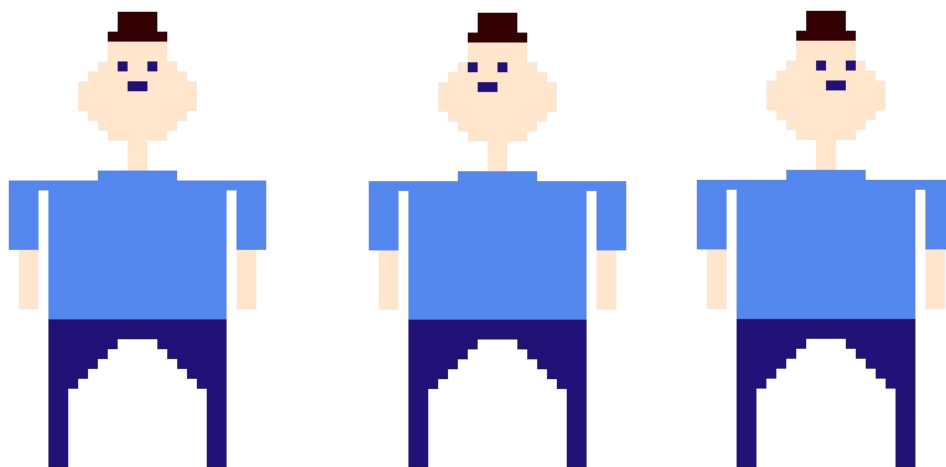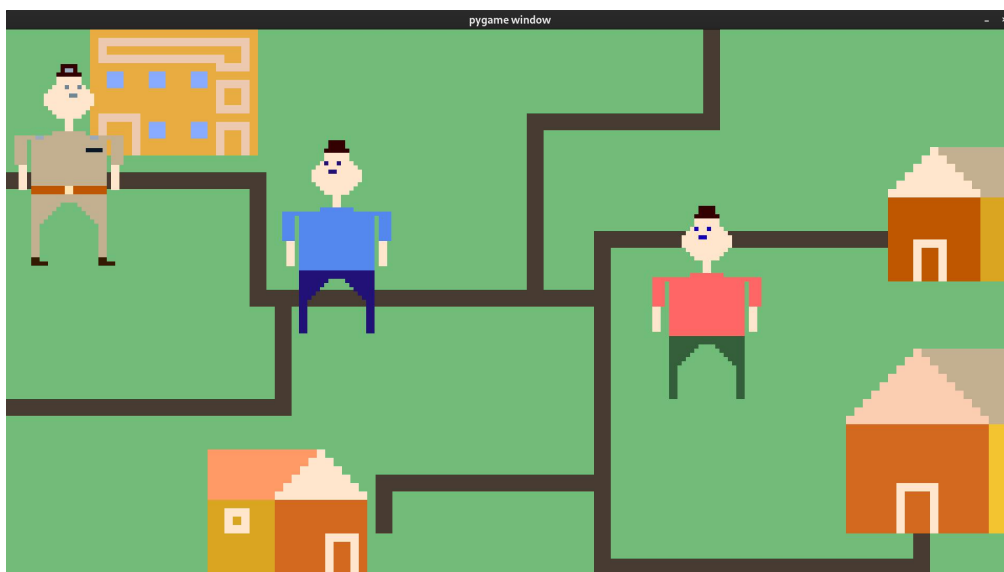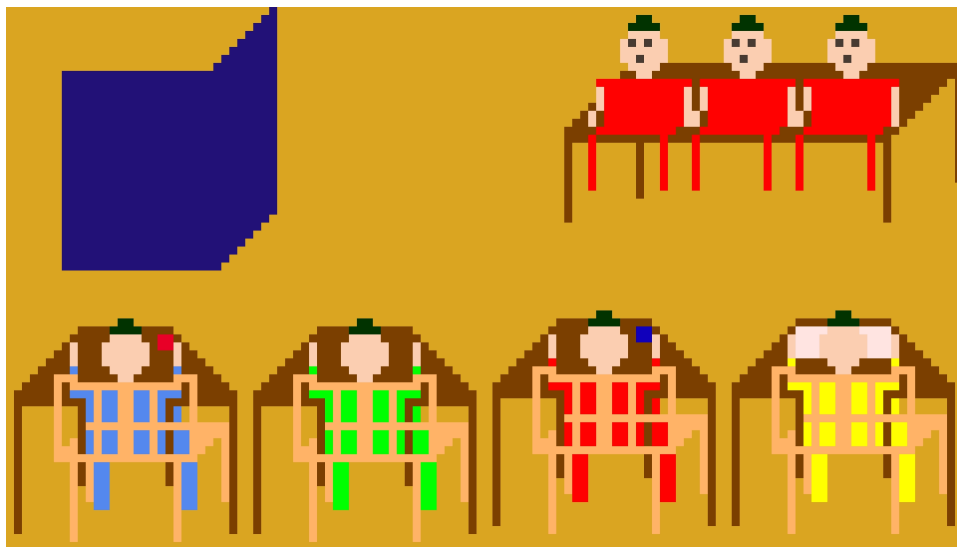

front looking character   left looking   right looking

Maps have been also designed using tiled.:

The assets used in the waste classification are collected from the internet. All types of waste like organic waste,medical waste, hazardous waste,recyclable waste images have been collected:

The dustbins used are collected using internet.

The conveyor belt is designed in the pygame itself.

All the elements which are required like assets are in the templates directory and materials/bins directory.

IMPLEMENTATION HIGHLIGHTS:

This game was mainly focussed to be perfect in tems of precision and UI and some good game logic. Ui is most responsive and doesn't have lag in terms of feedback. the action is immediately shown in the game. Game has zero latency and great responsiveness.In the election simulation part the game logic is written in such a way that adding any number of players is possible and we can automove them if there path is decided beforehand. Player is given messages in the form of message box such that he gets information about the particular part of the game. this is designed in such a way that once a player is given a message at a particular location he doesn't get the message again if he re visits the place bakc because he already knows the instrucitions. while some of the messages are left wantledly away from this category because the player might want to know some information regarding a particular character in the game again . so he can come back and can still get the information.So these form some good game logic components of the game that we implemented.Some sophisticated game mechanism which we impemented was using states. there are a lot of states in the game and handling them was a good game logic.

We might feel some irresponsiveness in some of the parts of the game that the character in the game is not moving but this shouldn't be considered as a bad feedback. his movement is restricted because that part of the game requires the player to stand still without any movement. this shouldn't be considered as a lag in feedback.

The waste classification game also has sophisticated logic. This was implemented using states of the game and has good ui and feedback. feedback is very fast and the game is very responsive and doesn't have and delay in the feedback.So this game has zero latency and has great responsiveness.The object when rotated on the conveyor belt vertically shouldn't fall off the belt. but in the game it moves exactly as the belt moves. so making this involves a good sophisticated game logic.

Due to lack of time some of the metrics which we traded off were scoring mechanisms in the election simulation game and some game logic was sacrificed due to time in waste classification game in which we thought to implement seperating of waste from a single object into multiple waste and then trashing it.