Dynamic Parking Program

Program Description:

Our program will display a high-density parking lot, where high density refers to the storage of the cars. Within a 64-unit parking lot there will be a total of 63 units of parking. Within this parking lot there will be 63 platforms responsible for the retrieval and the dynamic parking of cars wishing to park and leave the lot. These tiles will move around using the single empty spot in order to give movement capabilities to the tiles, the tiles would be unmovable if the grid of 64 platforms was filled with 64 platforms. The tiles will arrange themselves based on our high-density algorithm to place themselves in the best spot possible. This will make retrieval of the cars as quick as possible for future retrieval.

Program shall facilitate the customers with an easier to parking and pay for the time in which they desire to park their vehicles. The created program product shall use high density parking algorithm. The program will keep track of the time in which each vehicle has, each car will be given an id number that matches the credit card of the owner.

The user will swipe his card and he will get to choose the time he would like to stay from four options hours in the given intervals of 0 - 29 minutes, 30 - 59minutes, 1h - 1h 29minutes and so on up to a limit of 4 hours. He will be billed at the time of departure but they will have a limit of $40(4 hrs.), the price will be rounded if they leave earlier than the due time. In case the customer makes a mistake, it will prompt him just in case to make sure that the action was correct. For example, if the customer swipes the card twice in a row then it asks him if he wants to leave or not.

* Car Arrival Time

The customer arrives and swipes in and it prompt to see if it was the correct action just in case. Also, he gets to input how long he or she wishes to park their vehicle.

* Cards information

Customer swipes his card, we take his personal information and store it, he puts in the time in which he or she wants to park their vehicle. Remind them that they have a $ 40 limit.

* Car enters the parking lot

we give an ID to the vehicle that matches their credit card number and we store the time in which their vehicle is staying. At this point our algorithm comes into play.

* Departure time

Upon arrival, the customer swipes his card if he really wants to leave we prompt the customer to see if he wants to leave. If he is leaving we show him the receipt for the time the vehicle stays at our parking