Computer Graphics

Project Report

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Project Name - **View of Train Arrival and Departure**

Tools Used – OpenGL

Description of the idea: We have created a view of train arrival and departure using OpenGL.

- A view of Railway Station is created and also traffic signal permits train should move further or not.

- There are clouds, grass, trees, a railway station office, a Sun etc.

- When we press 't' or 'T', the train will come and stop if press 'r' or 'R' means it gives Red signal to train to stop. If we again press 'g' or 'G', it again starts moving.

- There is also day-night changing feature, if we press 'n' or 'N', background will change from day to night, if we press 'd' or 'D', background will change from night to day.

- In the night mode, we have also shown some stars. Clouds are also moving in the day mode. There are tables also.

It is the view of a railway station with natural surrounding having trees and grass nearby.

Complexity: There is no such major complexity in creating this view except it has so many objects and to place each object at right place. Synchronisation of train start and stop with traffic light signals.

Implementation: In the code, there are 3 major functions:

- draw_circle(): It is used to draw Sun, traffic signals etc. Like round objects.

- draw_object(): It is the function where all the objects are drawn.

- traffic_light(): There are 2 signals if light is 1 then it traffic light shows green signal, if light is 0, then traffic light shows red signal.

Future Works:

- We can add some more objects in the view like man sitting on the table, or standing.

- We can also add birds flying so that it will look like more realistic.

- We can also add a Ticket counter and can show a queue of people buying tickets from the counter.

Thank You.