Project 3

Group 6

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Part Ⅰ

In this part, we create two Classes. One is Vehicle, the other is Parkinglot.

For this part, we don't think it is necessary to use polymorphism or inheritance to create subclass of Vehicle because all the attributes and methods are pretty much the same. So we just make the "type of the vehicles" one of the attributes in the class "Vehicle" to differentiate different vehicles.

The Parkinglot contain all the vehicles that inside the parkinglot.

For the vehicles waiting outside, we use <queue> to store them.
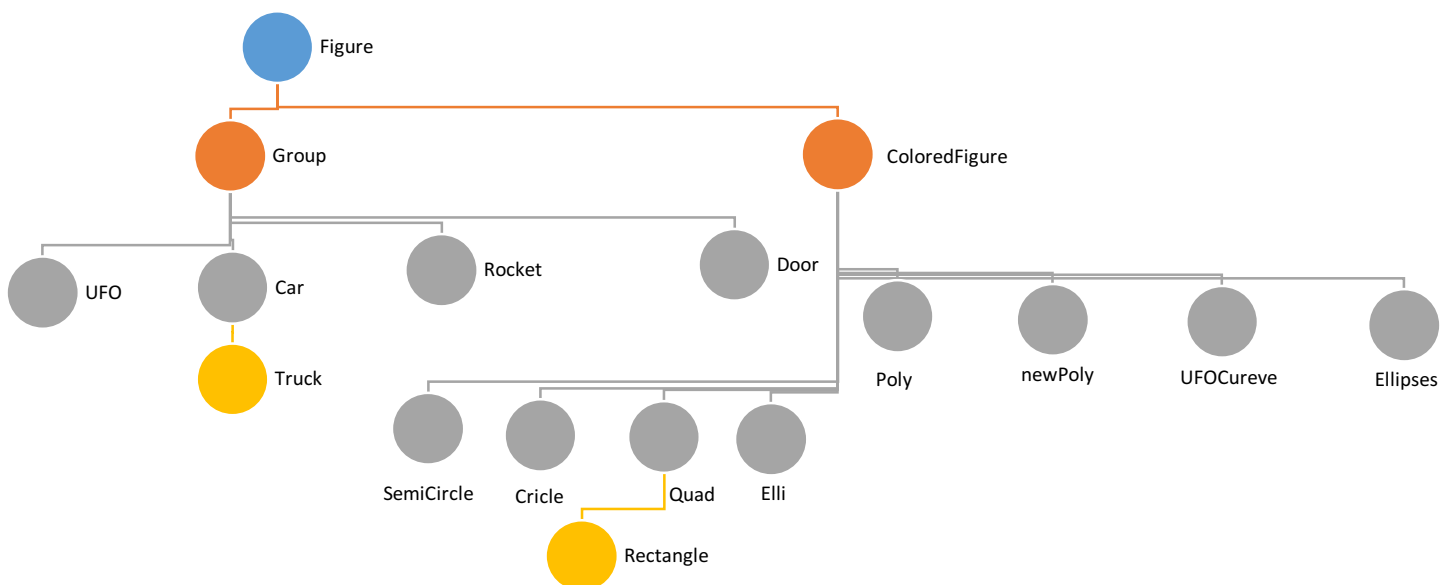
➤ Part Ⅱ

In this part, we first organize our structure as follows:

- Our UFO could spin, rotate and move; there is some special curves keep rotating around it making it looks more impressive:

  Spin: Here we make the UFO looks like rotating with respect to the axis within the screen. Since a symmetric 3D object would never change its shape when spinning, we add some

circles on it to show the spinning motion through the motion of the circles.

- The cars we designed are decorated with movable flags and different colors.
  *Note that the flag is waving at different speed for rotating and moving straight.
- Our rockets could keep zooming in and zooming out; its flame could change its size and color to make it more like a real fire
- Our teleporters could gradually change its color and its shapes. There are also several small particles shown on with gradual changing colors which makes it looks impressive