

Object Oriented Programming LAB- II

Note : Include / Exclude Data fields, parameters and Methods as per requirements.

1. Find the Area and perimeter of the circle.

Class Name : Circle
Data Fields : radius
Constructors : Circle(radius)
Methods : getArea() getPerimeter()

Circle object-1	Circle Object-2	Circle Object-3
Data Fields : radius :5	Data Fields : radius :10	Data Fields : radius :15

2. Switch on/off the led light and switch on/off the halogen light.

Note : turnOn()/turnOff() will print the state of light as On/Off.

Class Name : Lamp
Data Fields : isOn :boolean lampType : String
Constructors : Lamp(isOn)
Methods : turnOn() turnOff()

Lamp object-1 : led	Lamp Object-2 : halogen
Data Fields : isOn : true	Data Fields : isOff : false

3. Television simulation

Class Name : TV	Details of data members / Methods
Channel : int volume level : int on: boolean	Channels (1 to 40) volume level (1 to 7) indicates TV on/off
TV() turnOn() : void turnOff():void setChannel(newChannel:int) : void setVolume(newVolumeLevel : int) : void channelUp() :void channelDown():void volumeUp():void volumeDown():void	Constructs default TV object Turns on the TV Turns off the TV sets a new channel for this TV sets a new volume level for this TV increases the channel number by 1 decreases the channel number by 1 increases the volume by 1 decreases the volume level by 1

4. Suggest the car for the journey.

Journey details : Travel to warangal with minimum possible fuel consumption & least possible Time.

Class Name : Car Data Fields : company : String mileage : double Speed : double color : String Constructors : Car () Methods : getMileage() getSpeed() :.....

Car object-1 : Ford	Car Object-2 : Toyota	Car Object-3:volkswagon
Data Fields : -----	Data Fields : -----	Data Fields : -----

5. Suggest the Dog to the buyer in a Kennel.

Get input from the user and suggest the Dog. Inputs may include : breed, type, height etc.,, output is dogs name.

Class Name : Dog

**Data Fields : name : String
breed : String
color: String
height : double
type: String**

Constructors : Dog()

**Methods : getBreed()
getName()
.....**

Dog object-1 : snoopy	Dog Object-2 : rocky	Dog Object-3 : snowy
Data Fields : name : snoopy breed : pomerian color: white height : 1 ft type: gaurd	Data Fields : name : rocky breed : lab color: brown height : 3 ft type: sniffer	Data Fields : name : snowy breed : g.sheperd color: black height : 4 ft type: sheperd