**public** **class** Engine {

**private** **int** EngineID;

**private** String EngineType;

**private** **int** horshpower;

**private** **float** EngineWeight;

Engine(**int** EngineID,String EngineType,**int** horshpower,**float** EngineWeight )

{

**this**.EngineID=EngineID;

**this**.EngineType=EngineType;

**this**.horshpower=horshpower;

**this**.EngineWeight=EngineWeight;

}

**public** **int** getEID()

{

**return** EngineID;

}

**public** String getEngineT()

{

**return** EngineType;

}

**public** **int** getHorsh()

{

**return** horshpower;

}

**public** **float** getWeight()

{

**return** EngineWeight;

}

**public** String toString()

{

String s=String.*format*("Engine Id:%d%n Engine Type:%s%n Horsh Power:%d%n Engine Weight:%f%n",getEID(),getEngineT(),getHorsh(),getWeight());

**return** s;

}

}

//EngineDemo

**import** java.util.ArrayList;

**import** java.util.Scanner;

**public** **class** EngineDemo {

**private** **static** Scanner *s*;

**private** **static** ArrayList<Engine> *eng*;

**private** **static** **void** initialize() {

*s*=**new** Scanner(System.***in***);

*eng*=**new** ArrayList<Engine>();

}

**private** **static** **int** menuoption()

{

System.***out***.println(">>>>>>>>>>>>>>>>>>>>>>Main Menu>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>");

System.***out***.println("1.Add Car Detail");

System.***out***.println("2.Display all car detail");

System.***out***.println("3.Display based on model");

System.***out***.println("4.Update Car detail");

System.***out***.println("5.Exit");

System.***out***.println(">>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>");

System.***out***.println("Enter the choice:");

**return** *s*.nextInt();

}

**public** **static** **void** main(String[] args) {

**int** ch;

*initialize*();

**while**(**true**)

{

ch=*menuoption*();

**switch**(ch)

{

**case** 1:

*eng*.add(*getEngineDetail*());

**break**;

**case** 2:

System.***out***.println(">>>>>>>All Engine Detail>>>>>>>");

**for**(Engine e: *eng*)

System.***out***.println(e);

**break**;

**case** 3:

*DisplayBasedOnModel*();

**break**;

**case** 4:

*UpdateCarDetail*();

**break**;

**case** 5:

System.*exit*(0);

}

}

}

**private** **static** **void** UpdateCarDetail() {

// **TODO** Auto-generated method stub

}

**private** **static** **void** DisplayBasedOnModel() {

System.***out***.println("Enter Model of car:");

String mod=*s*.next();

**for**(Engine ma:*eng*)

{

**if**(ma.getEngineT()==mod)

{

System.***out***.println("Car Found");

System.***out***.println(ma);

**return**;

}

System.***out***.println("Car not found");

}

}

**private** **static** Engine getEngineDetail() {

System.***out***.println("Enter the following: (Engine ID,Engine Type,Horsh power,Engine Weight) ");

**return** **new** Engine(*s*.nextInt(),*s*.next(),*s*.nextInt(),*s*.nextFloat());

}

}