public class DayScholar extends Student{ private int busNumber; private float distance; public DayScholar(int studentId,String studentName,String department,String gender,String category,double collegeFee,int busNumber,float distance) { super(studentId,studentName,department,gender,category,collegeFee); this.busNumber=busNumber; this.distance=distance; }public int getBusNumber(){ return this.busNumber; }public void setBusNumber(int busNumber) { this.busNumber=busNumber; }public float getDistance() { return this.distance; }public void setDistance(float distance) { this.distance=distance; }public double calculateTotalFee() { float distance=getDistance(); double collegeFee=getCollegeFee(); int busfee=0; if(distance>30 && distance<=40) { busfee=28000; }else if(distance>20 && distance<=30) { busfee=20000; }else if(distance>10 && distance<=20) { busfee=12000; }else if(distance<=10) { busfee=6000; } return collegeFee+busfee; } }

public abstract class Student { protected int studentId; protected String studentName; protected String department; protected String gender; protected String category; protected double collegeFee; public Student(int studentId,String studentName,String department,String gender,String category,double collegeFee) { this.studentId=studentId; this.studentName=studentName; this.department=department; this.gender=gender; this.category=category; this.collegeFee=collegeFee; } public String getCategory() { return this.category; }public void setCategory(String category) { this.category=category; }public int getStudentId() { return this.studentId; }public void setStudentId(int studentId) { this.studentId=studentId; }public String getStudentName() {return this.studentName; }public void setStudentName(String studentName) { this.studentName=studentName; }public String getDepartment() { return this.department; }public void setDepartment(String department) { this.department=department; }public String getGender() { return this.gender; }public void setGender(String gender) { this.gender=gender; }public double getCollegeFee() { return this.collegeFee; }public void setCollegeFee(double collegeFee) { this.collegeFee=collegeFee; } }

import java.util.Scanner;

public class UserInterface {

public static void main(String[] args) { Scanner sc = new Scanner(System.in); System.out.println("Enter Student Id"); int Student\_id=sc.nextInt(); System.out.println("Enter Student name"); String name=sc.next(); System.out.println("Enter Department name"); String department=sc.next(); System.out.println("Enter gender"); String gender=sc.next(); System.out.println("Enter category"); String category=sc.next(); if(category.equals("DayScholar")) { System.out.println("Enter College fee"); double collegefee=sc.nextDouble(); System.out.println("Enter Bus number"); int busNumber=sc.nextInt(); System.out.println("Enter the distance"); float distance=sc.nextFloat(); DayScholar d=new DayScholar(Student\_id,name,department,gender,category,collegefee,busNumber,distance); System.out.println("Total College fee is "+d.calculateTotalFee()); }else{ System.out.println("Enter College fee"); double collegefee=sc.nextDouble(); System.out.println("Enter the room number"); int room\_no=sc.nextInt(); System.out.println("Enter the Block name"); char block =sc.next().charAt(0); System.out.println("Enter the room type"); String roomType=sc.next(); Hosteller h=new Hosteller(Student\_id,name,department,gender,category,collegefee,room\_no,block,roomType); System.out.println("Total College fee is "+h.calculateTotalFee()); }} }

public class Hosteller extends Student{ private int roomNumber; private char blockName; private String roomType; public Hosteller(int studentId,String studentName,String department,String gender,String category,double collegeFee,int roomNumber,char blockName,String roomType) { super(studentId,studentName,department,gender,category,collegeFee); this.roomType=roomType; this.blockName=blockName; this.roomNumber=roomNumber; }public int getRoomNumber() { return this.roomNumber; }public void setRoomNumber(int roomNumber) { this.roomNumber=roomNumber; }public char getBlockName() { return this.blockName; }public void setBlockName(char blockName) { this.blockName=blockName; }public String getRoomType() { return this.roomType; }public void setRoomType(String roomType) { this.roomType=roomType; }public double calculateTotalFee() { double collegeFee=getCollegeFee(); String roomType=getRoomType(); char block=getBlockName(); int hostelfee=0; if(block=='A') { hostelfee=60000; if(roomType=="AC") { hostelfee=68000; } }else if(block=='B') { hostelfee=50000; if(roomType=="AC") { hostelfee=55000; } }else if(block=='C') { hostelfee=40000; if(roomType=="AC") { hostelfee=42500; } }return collegeFee+hostelfee; }}