The class Movie is started below. An instance of class Movie represents a film. This class has the following three class variables: title, studio, rating & static objectCount type int.

    a. Write a constructor for the class Movie, which takes a String representing the title of the movie, a String representing the studio, and a String representing the rating as its arguments, and sets the respective class variables to these values.

    b. Write a second constructor for the class Movie, which takes a String representing the title of the movie and a String representing the studio as its arguments, and sets the respective class variables to these values, while the class variable rating is set to "PG".

    c. Write a piece of code that creates an instance of the class Movie with the title "Casino Royale", the studio "Eon Productions", and the rating "PG13".

    d. Create a copy constructor of the default constructor and show the result of Part c.

    e. Show the total no of objects created in the program.

An organization keeps a record of all the managers that are part of their organization.

- The organization stores basic personal details such as the employee number, employee name, employee phone number in a separate file.
- The manager details that include the department name and the manager's salary are stored separately in another file.

The manager details such as the employee number, employee name, employee phone number, department name and the manager's salary are required as an input. Display the details for five managers along with the manager with the highest salary.

Write a program for Video/Movie Website, which provides services to watch and download movies. Your Program should ask the Customer Name, Customer Type, no of movies user wants to purchase and movie release year. It offers 3 types of memberships: Premium, Gold and Silver. Premium, gold and silver members receive a discount of 20%, 15%, and 10%. Customers without membership receive no discount. Program Store 5 movies and their ratings and tells if the movie is available or not Your Program shall compute the total bill. Note: customer can purchases multiple movies.

Year Release 2021: Rs 1000 /movie

Year Release 2018-2020 Rs. 700/ movie

Year Release 2014-2017 Rs. 500/movie

Question : Write a program for Naveed's inventory management system where he keeps track of customers, products and suppliers. Using object-oriented programming concepts to enable following functionalities

a. Add customer by providing information such as name, contact info, and location along with auto-incremented ID. Add product by providing information such as product name, price, stock and auto-incremented ID. Add supplier by providing information such as supplier name, location, category, with auto-incremented ID.

b. He also stores information for every SALE, by providing information date, product, customer, Supplier with auto-incremented ID. After every sale is created, display it on screen in the format date, Sale ID, product name, customer name, supplier name and total price. Do not forget to ask user to enter information of product, customer and supplier for every sale. The program keeps asking user to create new sales until he enters 'Q' to quit.

AirCore, an airline booking system stores information about the tickets that are sold to passengers.

- Implement a class named "TICKET" that has the attributes passenger's name, departure city, arrival city, flight number and ticket price. The class has a constructor that sets all the mentioned attributes and a function getPrice( ) that returns the price of the ticket.
- Derive a class "PREMIUM TICKET" that inherits all the attributes from "TICKET" but also has an attribute the seat number.
- The class has a constructor that sets all the attributes of "TICKET" and the seat number.
- The price of Premium Ticket is 25% more than the price of Ticket. Redefine the function getPrice( ) to return the price of Premium Ticket by calling Ticket's getPrice( ) function and multiplying the result by 25%.
- In the main program, display the price for both Ticket and Premium Ticket by creating one object of each class.

You are required to develop a grading program for a course. The following grade policies are followed:

There are two quizzes, each quiz is marked out of 10 and has a combined weightage of 10%.

There are two assignments, each assignment is marked out of 40 and has a combined weightage of 10%.

There are two midterms, marked out of 30 and each has a weightage of 15%.

There is one final exam, marked out of 100 and has a weightage of 50%.

Grade for a course are awarded on the following criteria:

A: 90 and above

B+: 85 above and below 90

B: 80 to 85

C+: 65 above and below 70

C: 60 to 65

D+: 55 above and below 60

D: 50 to 55

F: Below 50

Create a class named as Course.

The class contains member variables that are student's name and student's ID.

Create appropriate functions that allows the user to input the marks for each of the assessments.

Display the final grade of the student in the course, based on the grading scheme given.