

1. Write a program to create a class song add songid,lyrics,singer name, create SongService class add function to
addsong() to accept a song details and store it in array
displayAllsongs---- to display all songs
displayByActor(String name) ---- display all songs of a particular singer, pass singername as
-----a parameter to the function
2. Write a menu driven program to maintain student information. for every student store
studetid,sname, and m1,m2,m3 marks for 3 subject. also store gpa in student class, add a
function in student class to return GPA of a student

calculateGPA()

$$gpa = (1/3)*m1 + (1/2)*m2 + (1/4)*m3$$

Create an array to store Multiple students.

1. Display All Student
2. Search by id
3. Search by name
4. calculate GPA of a student
5. Exit

Q2. Write a python program to store information of your friends

id,name,lastname,hobbies,mobno,email,bdate,address

note: hobbies- a friend may have multiple hobbies

Accept all friends details and store it in a list

And do the following.

1. Display All Friend
2. Search by id
3. Search by name
4. Display all friend with a particular hobby
5. Exit

Q3. Write a python application to maintain information for xyz sports club. The sports club wants to store employee details, for each employee store.

id, name, mobile no, emailid, Department, designation, Date of joining.

Employees are of 3 types salaried employee or contract employee, Vendors. If employee is salaried employee, then store basic salary, bonus and if it is contract employee then store no of hrs worked and per hour rate and if it is vendor then store no_of _employees, amount per employee

design a menu driven program to perform following

Calculate net salary by using following formula

1. Salaried Employee

Basic+DA+HRA-pf+bonus

DA-10% of basic

HRA – 15% of basic

Pf – 12% of Basic

2. Contract Employee

Hr rate * no of hrs worked

3 Vendor

Total_Amount=No of employees*amt

GST =18% Total_Amount

Net_amt= Total_Amount + GST

design a menu driven program to perform following

1. Display All employees (ask user salaried employee /contract employee /vendor display only one type of employees based on selection)

2. Search by id

3. Search by name

4. Display all employee

5. calculate salary and display for all employees with particular designation

6. accept department from user and display 5 employees of that department.

5. Exit

Q4. Write a program to store information about accounts.

For every account store acno,name,balance,interest_rate, min_balance,pin number.

There are 3 types of accounts

Saving account, current account, Demat account

For saving account store debit card number and cheque book number, its interest rate is 0.04, and min balance is 15000 , for current account store number of transactions its interest rate is 0.01, and min balance is 1000, Demat account store commission per transaction and shares name and quantity. its interest rate is 0.10, and min balance is 20000

Add the functions add new account, change pin number, check balance, withdraw amount, deposit amount. For every transaction validate account number and pin number

Handle the exception for withdraw and deposit amount cannot be negative