

Delhi Public School, R.K.Puram, New Delhi

Computer Science Practical List 3

13. Define a class BOOK with the following members:

Private members

Bno of type int
Bname of type char array of size 20
Author of type char array of size 20
Price of type float

Public members

void Enter() member function to enter the values of data members
void Display() member function to display the values of data members
int RBno() member function that returns the value of Bno
char * RBname() member function that returns the value of Bname

Write a menu driven program with separate functions for each of the following for an array of BOOK type:

- To enter values in the array of BOOK
- To display the details from an array of BOOK passed through parameter
- To search for a BOOK from the array upon its Bno and display its details
- To search for a BOOK from the array upon its Bname and display its details

14. Declare a structure DATE with the following members:

Day of type int
Month of type int
Year of type int

Define a class STUDENT with the following members:

Private members

Admno of type int
Sname of type char array of size 20
DOB of type date //represents date of birth

Public members

void Input() member function to enter the values of data members
void Show() member function to display the values of data members
DATE RDOB() member function that returns the value of DOB

Write a menu driven program with separate functions for each of the following for an array of STUDENT type:

- To enter values in the array of STUDENT
- To display details of a STUDENT from array of STUDENT passed through parameter
- To display the details of all students from array of STUDENT who are born on [1 1 1990] or [2 2 1990] or [3 3 1990]

15. Define a function Intext(), to create a text file named Story.txt, which should contain text lines entered by the user.

Define another function Outtext(), to read and display each word of the text file Story.txt on different lines on screen.

Write a program which uses the above two functions to create and display the contents of the text file Story.txt.

16. Write a program which uses a function CountAVD(), to read the contents of the text file Story.txt (created using program 15), and counts and prints the number of Alphabets, Vowels and Digits present in the file.

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17. Write a program which uses a function RevText(), to read the contents of the text file Story.txt (created using program 15), and prints in reverse of those lines which start with an alphabet 'T'.
18. Define a class CANDIDATE with the following members:
- Private members
- | | |
|-------|-------------------------------|
| Cno | of type int |
| Cname | of type char array of size 20 |
| Score | of type int |
- Public members
- | | |
|----------------|---|
| void Enter() | member function to enter the values of data members |
| void Display() | member function to display the values of data members |
| int RScore() | member function that returns the value of Score |
- Define a function Enrol(), to create a binary file named Candidate.dat, which should contain details of CANDIDATES entered by the user.
 - Define another function GetPass(), to read and display the details of those candidates whose Score is ≥ 33 .

Write a program which uses the above two functions to create the file Candidate.dat and display the details of the candidates who have passed.

19. Define a class ACCOUNT with the following members:
- Private members
- | | |
|---------|-------------------------------|
| Acno | of type int |
| Name | of type char array of size 20 |
| Balance | of type float |
- Public members
- | | |
|------------------------|---|
| void Init() | member function to enter the values of data members |
| void Show() | member function to display the values of data members |
| void Deposit(int Amt) | member function to increase Balance by Amt |
| void Withdraw(int Amt) | member function to reduce Balance by Amt |
| float RBalance() | member function that returns the value of Balance |
- Define a function Register(), to create a binary file named Accounts.dat, which should contain details of ACCOUNTS entered by a user.
 - Define another function Transact(), to perform a transaction i.e. Deposit or Withdraw an Amount in an Account Holders Balance whose Acno is entered by the user. Note that an Account Holder must always have a minimum Balance of Rs 500 in his Account.
 - Define another function DisplayAll() to display the details of all Account Holders.

Write a menu driven program, which uses all the above functions.

General Instructions:

- Type the programs mentioned above during the Lab Periods
- Type in the following on top of each of your program as comment lines

```
/*
Program No   : 13
Developed By: Gagan Sriprakash, Gareema Gehlot, Gyan Chandrashekhar
Date        : 09-July-2015
*/
```
- On successful compilation and execution, copy and paste the sample output at the bottom of the program as comment lines.
- Take out a hardcopy of the program from the printer and get it signed from the respective computer teacher. Paste this printout in the practical file and get the Index entry also signed.