

Bahria University,

Karachi Campus



Bahria University
Discovering Knowledge

COURSE: CSC -113 Computer Programming lab
TERM: SPRING 2020, CLASS: BCE- 2A

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COMPUTER PROGRAMMING LAB

TASK 1

Write a C++ that perform following task:

- Create a function *Student ()* that prompt user to a student record. Student contains following details.
ID, Full Name, Email, Department and Phone Number.
- Store the input in file student.txt
- In main program call function *Student()*
- Program should prompt user that you want to enter a new record. If 'Y' ask user for new details. If 'N', program should terminate. (Use event controlled loop)

PROGRAM:

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```
T1.cpp T2.cpp T3.cpp
1  #include <iostream>
2  #include <fstream>
3  #include<string>
4  int student();
5  using namespace std;
6  int main ()
7  {
8  student();
9  }
10 int student()
11 {
12 ofstream studentfile("studentfile.txt",ios::out|ios::app);
13 cout<<"Enter new Record:" <<endl;
14 cout<<"-----" <<endl;
15 int enroll,Phone;
16 string Name,Department,Email;
17 cout<<"Full Name: ";
18 cin>>Name;
19 studentfile<<Name<<"\t\t";
20 cout<<"ID: ";
21 cin>>enroll;
22 studentfile<<enroll<<"\t\t";
23 cout<<"Email: ";
24 cin>>Email;
25 studentfile<<Email<<"\t\t";
26 cout<<"Department: ";
27 cin>>Department;
28 studentfile<<Department<<"\t\t";
29 cout<<"Phone Number: ";
30 cin>>Phone;
31 studentfile<<Phone<<"\t\t\n";
32 cout<<endl <<"===== " <<endl;
33 char choice;
34 cout<<"Do You Want To Enter New Record: (y/n) ";
35 cin>>choice;
36 studentfile.close();
37 if(choice=='Y' || choice=='y')
38 {
39 student();
40 }
41 else if (choice=='N' || choice=='n')
42 {
43 return 0;
44 }
```

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```
Enter new Record:
-----
Full Name: Umair
ID: 004
Email: umaigurjar@gmail.com
Department: bce2a
Phone Number: 123456789

=====
Do You Want To Enter New Record: (y/n) y
Enter new Record:
-----
Full Name: Muhammad
ID: 005
Email: 004@student.bahria.edu.pk
Department: bce2a
Phone Number: 111222333

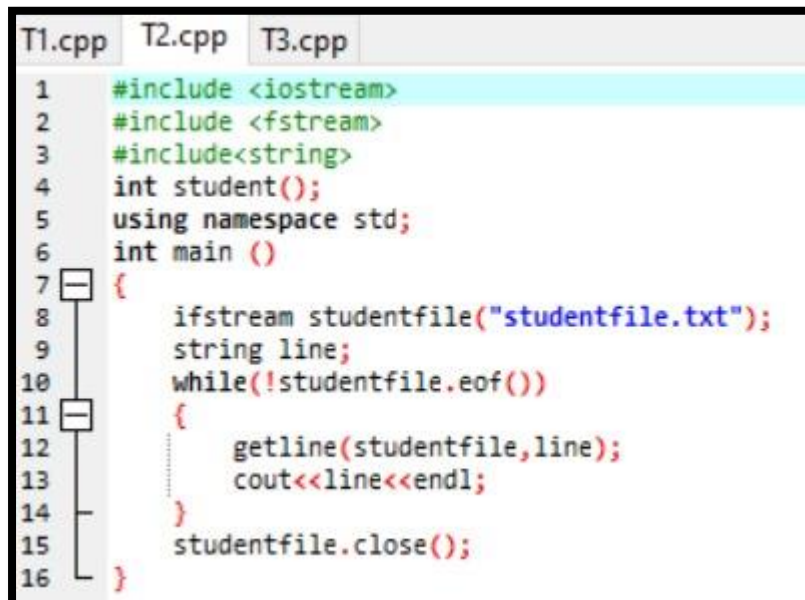
=====
Do You Want To Enter New Record: (y/n) n

-----
Process exited after 83.72 seconds with return value 0
Press any key to continue . . .
```

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TASK 2

PROGRAM:



```
T1.cpp T2.cpp T3.cpp
1  #include <iostream>
2  #include <fstream>
3  #include <string>
4  int student();
5  using namespace std;
6  int main ()
7  {
8      ifstream studentfile("studentfile.txt");
9      string line;
10     while(!studentfile.eof())
11     {
12         getline(studentfile,line);
13         cout<<line<<endl;
14     }
15     studentfile.close();
16 }
```



```
Umair          4          umaigurjjar@gmail.com      bce2a          123456789
Muhammad       5          004@student.bahria.edu.pk    bce2a          111222333

-----
Process exited after 0.09212 seconds with return value 0
Press any key to continue . . .
```

TASK 3

Write a C++ program for billing system of MovInPeak restaurant. The program should perform following tasks:

- Show menu to customer for orders.
- Allow the customer to select more than one item from the menu.
- Calculate and print the bill.

Assume that the restaurant offers the following items (the price of each item is shown to the right of the item):

- Omlet \$1.45
- French Omlet \$2.45
- Muffin \$0.99

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- French Toast \$1.99
- Fruit Basket \$2.49
- Cereal \$0.69
- Coffee \$0.75
- Tea \$0.50

PROGRAM:

```
T1.cpp T2.cpp T3.cpp
1  #include <iostream>
2  using namespace std;
3  void displayMenu()
4  {
5      cout<<"====Welcome to MovenPick===="<<endl;
6      cout<<"\n***MENU LIST***\n"<<endl;
7      cout<<"\t 1- Omelet $1.45 "<<endl
8          <<"\t 2- French Omelet $2.45 "<<endl
9          <<"\t 3- Muffin $0.99 "<<endl
10         <<"\t 4- French Toast $1.99 "<<endl
11         <<"\t 5- Fruit Basket $2.49 "<<endl
12         <<"\t 6- Cereal $0.69 "<<endl
13         <<"\t 7- Coffee $0.75 "<<endl
14         <<"\t 8- Tea $0.50 "<<endl
15         <<"\t 9- End order "<<endl;
16 }
17 void displayBill(double bill,double totlbill,double tax)
18 {
19     cout<<fixed;
20     cout<<"\nBill = $"<<setprecision(2)<<bill<<endl;
21     cout<<"Tax= $"<<setprecision(5)<<tax<<endl;
22     cout<<"Total amount due= $"<<setprecision(2)<<totlbill<<endl;
23 }
24 double calculatePrice(int choice)
25 {
26     switch(choice)
27     {
28     case 1:
29         return 1.45;
30     case 2:
31         return 2.45;
32     case 3:
33         return 0.99;
34     case 4:
35         return 1.99;
36     case 5:
37         return 2.49;
38     case 6:
39         return 0.69;
40     case 7:
41         return 0.75;
42     case 8:
43         return 0.50;
44     default:
```

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```
44     default:
45         cout<<"Incorrect menu selection, please re enter"<<endl;
46         return 0.0;
47     }
48 }
49 int main() {
50     int choice;
51     double bill=0.0;
52     double tax=0.0;
53     double totbill=0.0;
54     displayMenu();
55     cout<<endl;
56     while(1){
57         cout<<"Enter menu item: ";
58         cin>>choice;
59         if(choice==9)
60             break;
61         bill+=calculatePrice(choice);
62     }
63     tax= bill*0.13;
64     totbill=bill+tax;
65     displayBill(bill,totbill,tax);
66 }
```


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```
=====
Welcome to MovenPick
=====
1-Buy
2-Close
1

=====
BUY-MENU
=====
1-Omlet $1.45
2-French Omlet $2.45
3-Muffin $0.99
4-French Toast $1.99
5-Fruit Basket $2.49
6-Cereal $0.75
7-Coffee $0.75
8-Tea $2.00
9-Aloo Paratha $3.79
10-Coffee With Karan $100
For Confirming The Items press 11
3

Item Confirmed: Muffin $0.99

=====
BUY-MENU
=====
1-Omlet $1.45
```


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```
2-French Omlet $2.45
3-Muffin $0.99
4-French Toast $1.99
5-Fruit Basket $2.49
6-Cereal $0.75
7-Coffee $0.75
8-Tea $2.00
9-Aloo Paratha $3.79
10-Coffee With Karan $100
For Confirming The Items press 11
4
```

Item Confirmed: French Toast \$1.99

=====

BUY-MENU

=====

```
1-Omlet $1.45
2-French Omlet $2.45
3-Muffin $0.99
4-French Toast $1.99
5-Fruit Basket $2.49
6-Cereal $0.75
7-Coffee $0.75
8-Tea $2.00
9-Aloo Paratha $3.79
10-Coffee With Karan $100
For Confirming The Items press 11
5
```

Item Confirmed: Fruit Basket \$2.40

=====

BUY-MENU

=====

```
1-Omlet $1.45
2-French Omlet $2.45
3-Muffin $0.99
4-French Toast $1.99
5-Fruit Basket $2.49
6-Cereal $0.75
7-Coffee $0.75
8-Tea $2.00
9-Aloo Paratha $3.79
10-Coffee With Karan $100
For Confirming The Items press 11
11
```

=====

Please Pay: 5.38

=====

=====

Welcome to MovenPick

=====

```
1-Buy
2-Close
2
```

PROGRAM HAS BEEN CLOSED BY USER

Process exited after 13.9 seconds with return value 0
Press any key to continue . . .