

Lab Manual #03

“Home Tasks”



Course: **Fundamentals of Programming (CS 114)**

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Task 1

```
1  #include <iostream>
2  using namespace std;
3
4  int main()
5  {
6      char province;
7      cout << "Enter \np for Punjab \ns for Sindh \nk for KPK \nb for Balochistan \n=> ";
8      cin >> province;
9
10     switch (province)
11     {
12     case 'p':
13         cout << "Population of Punjab is 127 Million People";
14         break;
15
16     case 's':
17         cout << "Population of Sindh is 54 Million People";
18         break;
19
20     case 'k':
21         cout << "Population of KPK is 40 Million People";
22         break;
23     case 'b':
24         cout << "Population of Balochistan is 21 Million People";
25         break;
26     default:
27         cout << "Incorrect Input";
28         break;
29     }
30     return 0;
31 }
32
```

Output

```
PS C:\Users\muham\Documents\Fundamentals of Programming\FOP-Lab-Abdullah> ./Task1.exe
Enter
p for Punjab
s for Sindh
k for KPK
b for Balochistan
=> p
Population of Punjab is 127 Million People
```

Task 2

```
@ Task2.cpp > main()
1  #include <iostream>
2  using namespace std;
3
4  int main()
5  {
6      char letter;
7      cout << "Enter Letter \n-> ";
8      cin >> letter;
9
10     switch (letter)
11     {
12     case 'a':
13         cout << "Vowel";
14         break;
15
16     case 'e':
17         cout << "Vowel";
18         break;
19
20     case 'i':
21         cout << "Vowel";
22         break;
23
24     case 'o':
25         cout << "Vowel";
26         break;
27
28     case 'u':
29         cout << "Vowel";
30         break;
31
32     case 'A':
33         cout << "Vowel";
34         break;
35
36     case 'E':
37         cout << "Vowel";
38         break;
39
40     case 'I':
41         cout << "Vowel";
42         break;
43
44     case 'O':
45         cout << "Vowel";
46         break;
47
48     case 'U':
49         cout << "Vowel";
50         break;
51
52     default:
53         cout << "Consonant";
54         break;
55     }
56     return 0;
57 }
```

Output

```
PS C:\Users\muham\Documents\Fundamentals of Programming\FOP-Lab-Abdullah> ./Task2.exe
Enter Letter
=> a
Vowel
```

Task 3

```
e Task3.cpp > main()
1  #include <iostream>
2  using namespace std;
3
4  int main()
5  {
6      int num;
7      cout << "Enter Number \n-> ";
8      cin >> num;
9
10     switch (num > 0)
11     {
12     case 1:
13         cout << "Positive";
14         break;
15     case 0:
16         switch (num < 0)
17         {
18         case 1:
19             cout << "Negative";
20             return 0;
21             break;
22
23         case 0:
24             cout << "Zero";
25             return 0;
26             break;
27
28         default:
29             cout << "Incorrect Input";
30             break;
31         }
32
33     default:
34         cout << "Incorrect Input";
35         break;
36     }
37     return 0;
38 }
39
```

Output

```
PS C:\Users\muham\Documents\Fundamentals of Programming\FOP-Lab-Abdullah> ./Task3
Enter Number
-> 0
Zero
```

Task 4

```
e Task4.cpp > main()
1  #include <iostream>
2
3  using namespace std;
4
5  int main() {
6      int age;
7      cout << "Enter Age: ";
8      cin >> age;
9
10     if (age >= 18) {
11         cout << "Adult" << endl;
12     } else if (age >= 13) {
13         cout << "Teenager" << endl;
14     } else {
15         cout << "Child" << endl;
16     }
17
18     return 0;
19 }
20
```

Output

```
PS C:\Users\muham\Documents\Fundamentals of Programming\FOP-Lab-Abdullah> ./Task4
Enter Age: 19
Adult
```

Task 5

```
Task5.cpp > main()
1  #include <iostream>
2
3  using namespace std;
4
5  int main() {
6      double num1, num2, num3;
7
8      cout << "First number: ";
9      cin >> num1;
10     cout << "Second number: ";
11     cin >> num2;
12     cout << "Third number: ";
13     cin >> num3;
14
15     if (num1 >= num2) {
16         if (num1 >= num3) {
17             cout << "Greatest number is: " << num1 << endl;
18         } else {
19             cout << "Greatest number is: " << num3 << endl;
20         }
21     } else {
22         if (num2 >= num3) {
23             cout << "Greatest number is: " << num2 << endl;
24         } else {
25             cout << "Greatest number is: " << num3 << endl;
26         }
27     }
28
29     return 0;
30 }
31
```

Output

```
PS C:\Users\muham\Documents\Fundamentals of Programming\FOP-Lab-Abdullah> ./Task5
First number: 13
Second number: 16
Third number: 31
Greatest number is: 31
```

Task 6

```
Task6.cpp > main()
1  #include <iostream>
2
3  using namespace std;
4
5  int main()
6  {
7      char letter;
8
9      cout << "Letter: ";
10     cin >> letter;
11
12     if (letter == 'a' || letter == 'A' ||
13         letter == 'e' || letter == 'E' ||
14         letter == 'i' || letter == 'I' ||
15         letter == 'o' || letter == 'O' ||
16         letter == 'u' || letter == 'U')
17     {
18         cout << "Vowel." << endl;
19     }
20     else
21     {
22         cout << "Consonant." << endl;
23     }
24
25     return 0;
26 }
27
```

Output

```
PS C:\Users\muham\Documents\Fundamentals of Programming\FOP-Lab-Abdullah> ./Task6
Letter: e
Vowel.
```