

Assignment-6: More on Decision Control Statements

1. Write a program to check whether a given number is a three digit number or not.
2. Write a program which takes the cost price and selling price of a product from the user. Now calculate and print profit or loss percentage.
3. Write a program to take marks of 5 subjects from the user. Assume marks are given out of 100 and passing marks is 33. Now display whether the candidate passed the examination or failed.
4. Write a program to check whether a given alphabet is in uppercase or lowercase.
5. Write a program to check whether a given number is divisible by 3 and divisible by 2.
6. Write a program to check whether a given number is divisible by 7 or divisible by 3.
7. Write a program to check whether a given number is positive, negative or zero.
8. Write a program to check whether a given character is an alphabet (uppercase), an alphabet (lower case), a digit or a special character.
9. Write a program which takes the length of the sides of a triangle as an input. Display whether the triangle is valid or not.
10. Write a program which takes the month number as an input and display number of days in that month.

The screenshot shows a C/C++ IDE interface with the following details:

- Toolbar:** Standard file operations (New, Open, Save, Print, Find, Replace, Copy, Paste, Cut, Undo, Redo) and project management icons.
- Menu Bar:** File, Edit, Search, View, Project, Execute, Tools, AStyle, Window, Help.
- Project Explorer:** Shows a single project item: "assig6.1.cpp".
- Global Variables:** A panel titled "(globals)" showing various global variables and their values.
- Code Editor:** The main window displays the following C code:

```
1 #include<stdio.h>
2 int main(){
3     int n;
4     printf("Enter any no.");
5     scanf("%d",&n);
6     if(n>=100&&n<=999)
7         printf("%d is a three digit no.",n);
8     else
9         printf("%d is not a three digit no.",n);
10 }
```
- Code Completion:** A small pop-up window labeled "Completion" is visible in the bottom right corner of the code editor area.

The screenshot shows a C/C++ IDE interface with the following details:

- Toolbar:** Standard icons for file operations (New, Open, Save, Print, Find, Copy, Paste, etc.).
- Global Bar:** Shows "(globals)" and a dropdown menu.
- File List:** A horizontal bar with tabs for various files: assig6.1.cpp, assig6.2.cpp, assig6.3.cpp, assig6.4.cpp, assig6.5.cpp, assig6.6.cpp, assig6.7.cpp, and assig6.8.cpp.
- Code Editor:** The main window displays the following C code:

```
1 #include<stdio.h>
2 int main(){
3     float cp,sp;
4     float profit,loss;
5     printf("Enter cost price.");
6     scanf("%f",&cp);
7     printf("Enter selling price.");
8     scanf("%f",&sp);
9     if(sp-cp>=0){
10         profit=(sp-cp)/cp*100;
11         printf("Profit is %.2f",profit);
12     }
13     else {
14         loss=(cp-sp)/cp*100;
15         printf("Loss is %.2f",loss);
16     }
17 }
```
- Compiler Bar:** Shows tabs for Compiler, Resources, Compile Log, Debug, and Find Results.
- Status Bar:** Displays "Col: 1 Sel: 0 Lines: 20 Length: 334 Insert Done parsing".

The screenshot shows a C/C++ IDE interface with the following details:

- Title Bar:** (globals)
- Toolbar:** Standard icons for file operations.
- Tab Bar:** Shows multiple files: assig6.1.cpp, assig6.2.cpp, assig6.3.cpp (highlighted with a red arrow), assig6.4.cpp, assig6.5.cpp, assig6.6.cpp, assig6.7.cpp, and assig6.8.cpp.
- Code Editor:** Displays the following C code:

```
1 #include<stdio.h> C:\Users\Sohan\Documents\C,C++,DSA Assignment\C programming as
2 int main(){
3     float s1,s2,s3,s4,s5;
4     float per;
5     printf("Enter the 5 subject No.");
6     scanf("%f %f %f %f %f",&s1,&s2,&s3,&s4,&s5);
7     per=(s1+s2+s3+s4+s5)/5;
8     if(per>=33)
9         printf("Candidate passed the examination %.2f%%",per);
10    else
11        printf("candidate failed the examination %.2f%%",per);
12
13
14
15 }
16
```
- Toolbars:** Compiler, Resources, Compile Log, Debug, Find Results.
- Status Bar:** Lines: 16, Length: 331, Insert, Done parsing.

File Edit Search View Project Execute Tools AStyle Window Help

(globals)

assig6.1.cpp assig6.2.cpp assig6.3.cpp assig6.4.cpp assig6.5.cpp assig6.6.cpp assig6.7.cpp assig6.8.cpp

```
1 #include<stdio.h>
2 int main(){
3     char x;
4     printf("Enter Alphabet: ");
5     scanf("%c",&x);
6     if(x>='a' && x<='z')
7         printf("Alphabet is Lowercase %c ",x);
8     else if (x>='A' && x<='Z')
9         printf("Alphabet is Uppercase %c ",x);
10    else
11        printf("%c is Not alphabet.",x);
12 }
```

Compiler Resources Compile Log Debug Find Results

Line: 1 Col: 1 Sel: 0 Lines: 12 Length: 274 Insert Done parsing

The screenshot shows a Windows operating system desktop. In the top left corner, there is a taskbar with several pinned icons, including File Explorer, Control Panel, and various application icons. The main window is a code editor titled '(globals)'. The title bar also includes tabs for other files like 'assig6.1.cpp' through 'assig6.7.cpp'. The code editor displays the following C++ program:

```
1 #include<stdio.h>
2 int main(){
3     int n;
4     printf("Enter the any no.");
5     scanf("%d",&n);
6     if(n%3==0 && n%2==0)
7         printf("%d is divisible by 3 and 2 ",n);
8     else
9         printf("%d is Not divisible by 3 and 2 ",n);
10 }
11 }
```

At the bottom of the screen, there is a toolbar with icons for Compiler, Resources, Compile Log, Debug, and Find Results. Below the toolbar, status information is displayed: Line: 1, Col: 1, Sel: 0, Lines: 11, Length: 218, Insert, and Done parsing in.

A screenshot of a Windows operating system desktop. At the top, there is a taskbar with several icons, including a recycle bin, a search bar, and a file explorer. Below the taskbar is a window titled '(globals)'. The window contains a list of files: assig6.1.cpp, assig6.2.cpp, assig6.3.cpp, assig6.4.cpp, assig6.5.cpp, assig6.6.cpp, assig6.7.cpp, and assig6.8.cpp. The file 'assig6.5.cpp' is currently open in the editor. The code in the editor is as follows:

```
1 #include<stdio.h>
2 int main(){
3     int n;
4     printf("Enter any no.");
5     scanf("%d",&n);
6     printf("\n");
7     if(n%7==0 || n%3==0)
8         printf(" %d is divisible by 7 or divisible by 3",n);
9     else
0         printf(" %d is not divisible by 7 or not divisible by 3",n);
1 }
```

File Edit Search View Project Execute Tools AStyle Window Help

(globals)

assig6.1.cpp assig6.2.cpp assig6.3.cpp assig6.4.cpp assig6.5.cpp assig6.6.cpp assig6.7.cpp assig6..

```
1 #include<stdio.h>
2 int main(){
3     int n;
4     printf("Enter any no.");
5     scanf("%d",&n);
6     if(n>0)
7         printf("%d is a positive no.",n);
8     else if(n<0)
9         printf("%d is a negative no.",n);
10    else
11        printf("%d is a zero",n);
12 }
```

Compiler Resources Compile Log Debug Find Results

The screenshot shows a C/C++ IDE interface with the following details:

- Title Bar:** (globals)
- Toolbar:** Standard icons for file operations, search, and other development tasks.
- Code Editor:** Displays a C program for character classification. The code uses `#include <stdio.h>` and defines a function `main()` that reads a character from the user and prints its classification (uppercase, lowercase, digit, special character, or other). The code is color-coded for syntax highlighting.
- Status Bar:** Shows the following information:
 - Compiler: Resources
 - Resources: Compiler Log
 - Compile Log: Debug
 - Debug: Find Results

Line: 1 Col: 1 Sel: 0 Lines: 18 Length: 505 Insert Done parsing in 0.0

The screenshot shows a software interface with a toolbar at the top containing various icons. Below the toolbar is a horizontal bar with file names: "assig6.2.cpp", "assig6.3.cpp", "assig6.4.cpp", "assig6.5.cpp", "assig6.6.cpp", "assig6.7.cpp", "assig6.8.cpp", and "assig6.9.cpp". The main area is a code editor with the following C++ code:

```
include<stdio.h>
int main(){
    int a,b,c;
    printf("Enter the length of triangle side a: ");
    scanf("%d",&a);
    printf("Enter the length of triangle side b: ");
    scanf("%d",&b);
    printf("Enter the length of triangle side c: ");
    scanf("%d",&c);
    if(a+b>c && b+c>a && c+a>b)
        printf("Triangle is Valid");
    else
        printf("Triangle is not valid");
}
```

At the bottom, there are tabs for "Compiler", "Resources", "Compile Log", "Debug", and "Find Results". Below these tabs, status information includes "Cok: 1", "Sel: 0", "Lines: 14", "Length: 350", "Insert", and "Done parsing in 0.031 seconds".

Edit Search View Project Execute

(globals)

assig6.1.cpp assig6.2.cpp assig6.3.cpp assig6.4.cpp assig6.5.cpp assig6.6.cpp assig6.7.cpp assig6.8.cpp assig6.9.cpp

```
#include<stdio.h>
int main(){
    int m;
    printf("Enter the month no.");
    scanf("%d",&m);
    printf("\n");
    if(m==1 || m==3 || m==5 || m==7 || m==8 || m==10 || m==12)
        printf("In month total days is 31");
    else if(m==4 || m==6 || m==9 || m==11)
        printf("In month total days is 30");
    else if (m==2)
        printf("In month total days is 28 or 29");
    else
        printf("Invalid month number");
}
```

Compiler Resources Compile Log Debug Find Results

Line: 1 Col: 1 Sel: 0 Lines: 15 Length: 402 Insert Done parsing in 0.031 seconds