Assignment-1

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https://github.com/saransh1274/SoE-Winter-Skill-Development

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Question-1

A.   7211048

B.   Line1:   char occupies 1 bytes

      Line2:   int occupies 4 bytes

      Line3:   error(no output) because of 2 commas

C.   Line1:   a = 33000b = inf

      Line2:   4 4

D.   Line1:   a = 33000b = inf

      Line2:   4 4

E. No Output (syntax error)

   because *float t = 4.2.;* is invalid due to . after 4.2

F. Line1:   4   garbage value

   Line2:   garbage value   4.000000

G. Line1:   no output because " is missing

   Line2:   will not execute because of errors in line-1

H. p = 1 q = 1

I. c = 1

J. I have robbed and killed...

K. ans = 1

L. ans = 200

M. error (; is missing in else statement)

N. syntax errors in both lines

- k = (k>5 && n = 4 ? 100:200); is invalid because n=4 assigns value to n and is not comparison operator (==)
- missing closing " and) in *printf ("k = %d*,k);*

O. infinite loop and no output because of semicolon after while

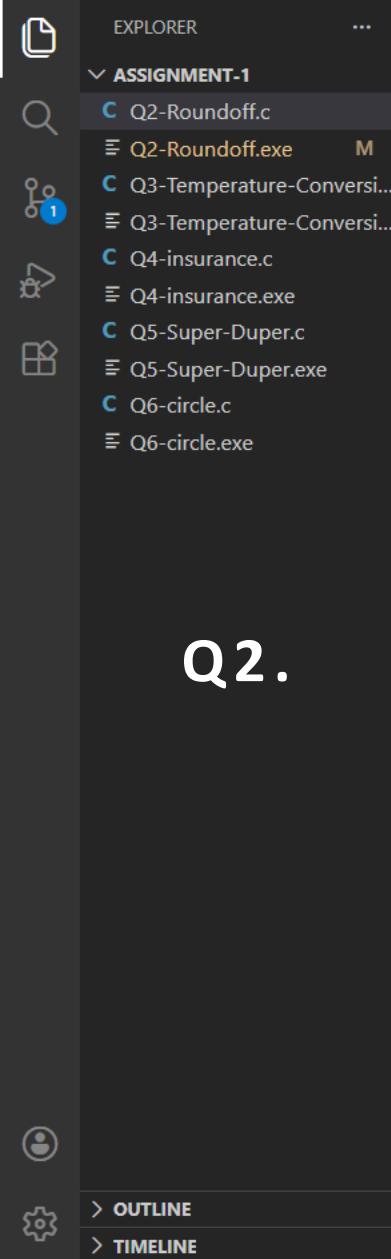P. numbers from 2 to 256 get printed

Q. error due to invalid format specifier in *printf* line (%'d) and missing semicolon at the end

R. no output due to missing semicolon in the *printf* statement and z = x / ++x; is wrong expression.

S. no output because the variable i is not declared anywhere

T. no output because the variable j is not declared anywhere and **there are two parenthesis)** in the *printf* statement.

U. no output as the program never reaches to the *printf* statement due to presence of *continue* and *break* in the loop

Q2.

```c
#include<stdio.h>
int main()
{
    int i, j, next;
    printf("Enter the value of integer i : ");
    scanf("%d", &i);
    printf("Enter the value of integer j : ");
    scanf("%d", &j);
    if (j == 0) {
        printf("j must not be zero.\n");
    }
    if (i % j == 0)
        next = i;
    else
        next = i + (j - i % j);
    printf("Largest multiple of %d after %d is %d.", j, i, next);
    return 0;
}
```

Q3.

```c
#include<stdio.h>
int main()
{
    float tempF,tempC;
    printf("\nEnter city's temperature in degree Fahrenheit : ");
    scanf("%f",&tempF);
    tempC = 5 * ( (tempF - 32) / 9 );
    printf("\nCity's temperature in degree Centigrade is : %f",tempC);
    return 0;
}
```

```
PS C:\Users\satya\OneDrive\Desktop\WSD-SoE\Assignment-1> cd "c:\Users\satya\OneDrive\Desktop\WSD-SoE\Assignment-1\" ; if ($?) { gcc Q3-Temperature-Conversion.
c -o Q3-Temperature-Conversion } ; if ($?) { .\Q3-Temperature-Conversion }

Enter city's temperature in degree Fahrenheit : 98.7

City's temperature in degree Centigrade is : 37.055553
PS C:\Users\satya\OneDrive\Desktop\WSD-SoE\Assignment-1>
```
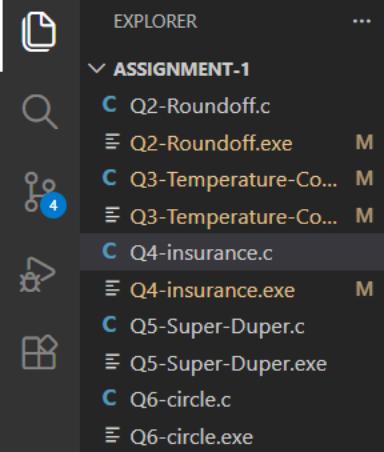
Q Assignment-1

EXPLORER

C Q5-Super-Duper.c   C Q4-insurance.c ✕   C Q6-circle.c   C Q2-Roundoff.c   C Q3-Temperature-Conversion.c M

∨ ASSIGNMENT-1

C Q2-Roundoff.c
≡ Q2-Roundoff.exe   M
C Q3-Temperature-Co... M
≡ Q3-Temperature-Co... M
C Q4-insurance.c
≡ Q4-insurance.exe   M
C Q5-Super-Duper.c
≡ Q5-Super-Duper.exe
C Q6-circle.c
≡ Q6-circle.exe

C Q4-insurance.c > ⬡ main()

```c
1   #include<stdio.h>
2   int main()
3   {
4       int age;
5       printf("\nEnter Driver's age (in Years): ");
6       scanf("%d", &age);
7       char carType;
8       printf("\nIs the car manufactured in India? (Y/N) : ");
9       scanf(" %c", &carType);
10      char carCondition;
11      printf("\nHave the car met with an accident in last 3 Years? (Y/N) : ");
12      scanf(" %c", &carCondition);
13      float carValue;
14      printf("\nEnter Declared value of the car (in Rs) : ");
15      scanf("%f", &carValue);
16      float premiumCharged;
```

Q4.

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS

```
PS C:\Users\satya\OneDrive\Desktop\WSD-SoE\Assignment-1> cd "c:\Users\satya\OneDrive\Desktop\WSD-SoE\Assignment-1\" ; if ($?) { gcc Q4-insurance.c -o Q4-insur
ance } ; if ($?) { .\Q4-insurance }

Enter Driver's age (in Years): 45

Is the car manufactured in India? (Y/N) : Y

Have the car met with an accident in last 3 Years? (Y/N) : N

Enter Declared value of the car (in Rs) : 2500000

Type of motor policy issued : COMPREHENSIVE
Amount of Premium : Rs 150000.00
Excess payable amount on any claim : not applicable
PS C:\Users\satya\OneDrive\Desktop\WSD-SoE\Assignment-1>
```
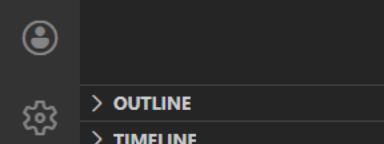
powershell
Code
Code

> OUTLINE
> TIMELINE

⊗ main*   ⊗ 0 ⚠ 0   Saransh (48 minutes ago)   Ln 23, Col 74   Spaces: 4   UTF-8   CRLF   {} C   Win32   Prettier

Q5.

```c
#include<stdio.h>
int main()
{
    int operatingCost = 10000;
    int profitPerUnit = 500;

    float sales = 100;
    float advt = 1000;

    float oldProfit = 0;
    float newProfit;

    for (;;)
    {
        newProfit = (sales * profitPerUnit) - (operatingCost + advt);
        if (newProfit < oldProfit)
            break;
        else {
        oldProfit = newProfit;

        advt = advt * 2;
        sales = sales * 1.2;
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   **TERMINAL**   PORTS

```
PS C:\Users\satya\OneDrive\Desktop\WSD-SoE\Assignment-1> cd "c:\Users\satya\OneDrive\Desktop\WSD-SoE\Assignment-1\" ; if ($?) { gcc Q5-Super-Duper.c -o Q5-Super-Duper } ; if ($?) { .\Q5-Super-Duper }
Sales before decline : 248.831991  i.e.  249

Advertising cost : Rs 32000.000000 i.e.  Rs 32000

Net Profit : Rs 82416.000000  i.e.  Rs 82416.00
PS C:\Users\satya\OneDrive\Desktop\WSD-SoE\Assignment-1>
```

Q6.

```c
#include <stdio.h>
int main()
{
    int r, x, y, point = 0;
    printf("Enter the radius of the circle : ");
    scanf("%d", &r);

    for (x = -r; x <= r; x++) {
        for (y = -r; y <= r; y++) {
            if (x*x + y*y <= r*r) {
                printf("(%d,%d)    ", x, y);
                point++;
            }
        }
    }
    printf("\n");
    printf("\nTotal number of integer points within the circle = %d\n", point);

    return 0;
}
```

TERMINAL

```
PS C:\Users\satya\OneDrive\Desktop\WSD-SoE\Assignment-1> cd "c:\Users\satya\OneDrive\Desktop\WSD-SoE\Assignment-1\" ; if ($?) { gcc Q6-circle.c -o Q6-circle }
; if ($?) { .\Q6-circle }
Enter the radius of the circle : 3
(-3,0)    (-2,-2)   (-2,-1)   (-2,0)    (-2,1)    (-2,2)    (-1,-2)   (-1,-1)   (-1,0)    (-1,1)    (-1,2)    (0,-3)    (0,-2)    (0,-1)    (0,0)    (0,1)    (0,2)    (0,3
)   (1,-2)    (1,-1)    (1,0)    (1,1)    (1,2)    (2,-2)    (2,-1)    (2,0)    (2,1)    (2,2)    (3,0)

Total number of integer points within the circle = 29
PS C:\Users\satya\OneDrive\Desktop\WSD-SoE\Assignment-1>
```