

OOJ lab week 2

Q3.

Pattern:

```
public class pattern {
    public static void main (String [] args) {
        int rows = 4, number = 1;
        for (int i = ; i <= rows; i++) {
            for (int j = 1; j <= i; j++) {
                System.out.print (number + " ");
            }
            System.out.println ();
        }
    }
}
```

Q4.

SEE & CIE

```
import java.util.Scanner;
class printGrade {
    public static void main (String [] args) {
        Scanner s = new Scanner (System. in);
        int cieMarks;
        int seeMarks;
        char grade;
        System.out.print ("Enter CIE Marks: ");
        cieMarks = s.nextInt();
        System.out.print ("Enter SEE marks: ");
        seeMarks = s.nextInt();
    }
}
```

```

if ((cremarks+secmarks) >= 90)
    grade = 'S';
else if ((cremarks+secmarks) >= 80 &&
        (cremarks+secmarks) < 90)
    grade = 'A';
else if ((cremarks+secmarks) >= 70 &&
        (cremarks+secmarks) < 80)
    grade = 'B';
else if ((cremarks+secmarks) >= 60 &&
        (cremarks+secmarks) < 70)
    grade = 'C';
else if ((cremarks+secmarks) >= 50 &&
        (cremarks+secmarks) < 60)
    grade = 'D';
else if ((cremarks+secmarks) >= 40 &&
        (cremarks+secmarks) < 50)
    grade = 'E';
else if ((cremarks+secmarks) < 40)
    grade = 'F';

else
    grade = 'O';

System.out.println ("Mark in CIE = " + cremarks);
System.out.println ("Marks in SEE = " + secmarks);
System.out.println ("Total marks = " + (cremarks+secmarks));
System.out.println ("Grade = " + grade);

```

3
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Q5.

Prime numbers between integers (C)

3

* include <stdio.h>

int main()

{

int num1, num2, i, j, flag;

printf ("Enter two numbers : ");

scanf ("%d %d", &num1, &num2);

printf (" Prime numbers between %d and %d are: \n",

num1, num2);

for (i = num1 + 1; i < num2; ++i)

{

flag = 0;

for (j = 2; j <= i / 2; ++j)

{

if (i % j == 0)

{

flag = 1;

break;

}

}

if (flag == 0)

printf ("%d \n", i);

B

return 0;

3

Q6. Area and volume (C)

```
#include <stdio.h>
```

```
#include <math.h>
```

```
#include <stdlib.h>
```

```
int main()
```

```
{
```

```
int z, r, h;
```

```
float pi = 3.14;
```

```
while (z)
```

```
{
```

```
printf ("Area and volume of 1: cylinder\n 2: cone  
 3: sphere\n 4: To exit ");
```

```
printf ("\n\n Enter the choice: ");
```

```
scanf ("%d", &z);
```

```
printf ("\nEnter the radius: ");
```

```
scanf ("%d", &r);
```

```
printf ("\nEnter the height: ");
```

```
scanf ("%d", &h);
```

```
switch (z)
```

```
{
```

```
int A, V;
```

```
case 1:
```

```
A = 2 * pi * r * h + 2 * pi * r * r;
```

```
V = pi * r * r * h;
```

```
printf ("Area : %d\n", A);
```

```
printf ("Volume : %d\n", V);
```

```
break;
```

```
case 2:
```

```
A = pi * r * (r + sqrt (h * h + r * r));
```

```
V = pi * r * r * h / 3;  
printf ("Area : %.d \n", A);  
printf ("Volume : %.d \n", V);  
break;
```

case 3 :

```
A = 4 * pi * r * r; V = (4/3) * pi * pi * pi;  
printf ("Area : %.d \n", A);  
printf ("Volume : %.d \n", V);  
break;
```

case 4;

```
exit(0);
```

break;

3

3

3

Q7.

```
#include <stdio.h>
struct course
{
    char name[20];
};

int main()
{
    struct course S[3][100];
    int n, i, j, c[3] = {0, 0, 0}, choice;
    char ch[3][10] = {"IOT", "JAVA", "DS"};
    printf("Enter number of students : (n)");
    scanf("%d", &n);
    printf("Enter student details : \n");
    for (i = 0; i < n; i++)
    {
        printf("----- \n");
        printf("Press code to Select course : \n 1. IOT\n 2. ADVANCE JAVA and J2EE 3. ADVANCE\n DATA STRUCTURES \n");
        scanf("%d", &choice);
        if ((choice < 0) || choice > 3)
        {
            printf("Invalid choice! \n");
            continue;
        }
        printf("Enter name of student %d \n", i + 1);
        scanf("%s", &S[i][choice - 1][c[choice - 1]]);
        c[choice - 1]++;
    }
}
```

```

disp;
for (i=0; i<3; i++)
{
    if (c[i] >= 0
    {
        printf ("List of students of course %s : \n", cn[i]);
        for (j=0; j < c[i]; j++)
        {
            printf ("%d. %s \n", j+1, s[i][j].name);
        }
        printf ("Number of students in the course is %d \n",
                en[i], j);
    }
}

for (i=0; i<=3; i++)
{
    if ((c[i] < 3 & & c[i] != -1)
        {
            printf ("Number of people less than 3 in course %s,
                    do the students in the course %s please
                    change the course : \n", cn[i], cn[i]);
            for (j=0; j < c[i]; j++)
            {
                printf ("Enter the course code : \n");
                scanf ("%d", &choice);
                if (choice == i+1)
                {
                    printf ("Enter other course \n");
                    continue;
                }
                printf ("Enter name : \n");
            }
        }
}

```

scanf("Y.S", &s[choice - 1][c[choice - 1].name]);
c[choice - 1] = t;

$n = c[i];$

$c[i] = -1;$

got n at i^{th} pos

\exists