Week 2

3)
```
#include <stdio.h>
int main() {
    int i, j, n, num = 1;
    printf("enter the number of rows:");
    scanf("%d", &n);
    for(i=1; i<=n; i++)
    {
        for(j=1; j<=i; j++)
        {
            printf("%d", num);
            num++;
        }
        printf("\n");
    }
    return 0;
}
```

4)
```
#include <stdio.h>
#include <stdlib.h>
int main()
{
  int ciemarks, seemarks;
  float see, total;
  int i;
for(i=1; i<=5; i++)
{

  printf("enter your marks in CIE
                for sub(%d): \n", i);
  scanf("%d", &ciemarks);
  if((ciemarks>=0) && (ciemarks<=50))
  {

  printf("your cie marks for sub(%d)
              is: %d \n", i, ciemarks);

  }
  else
  {
    printf("The marks are invalid \n");
        exit(0);
  }
```

```
printf("enter your marks in SEE for
        sub(%d); \n", i);
scanf("%d", &seemarks);
if((seemarks >= 0) && (seemarks <= 100))
{
  printf("your see marks for sub(%d) is :
          %d \n", i, seemarks);
}
else
{
printf("The marks are invalid \n");
  exit(0);
}

See = seemarks/2;
total = see + cicmarks;
printf("total marks you have scored in
        sub(%d) = %f \n", i, total);
if (total >= 90)
  printf("grade is S\n");
else if (total >= 80 && total < 90)
```

```
printf ("grade is A \n");
else if (total >= 70 && total < 80)
printf ("grade is B \n");
else if (total >= 60 && total < 70)
printf ("grade is C \n");
else if (total >= 50 && total < 60)
printf ("grade is D \n");
else if (total >= 40 && total 50)
printf ("grade is E \n");
else
printf ("grade is F \n");
}
return 0;
}
```

store
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5)
```
# include <stdio.h>
int main()
{
  int num1, num2, n, i, j
  printf("enter the 1st integer \n");
  scanf("%d", &num1);
  printf("enter the 2nd integer \n");
  scanf("%d", &num2);
  printf("prime numbers from %d and
          %d are : \n", num1, num2);
for (i=num1; i<=num2; ++i)
  {
   n=0;
   for (j=2; j<i/2; ++j)
      {
        if (i%j==0)
        {
          n=1;
          break;
        }
      }
```

```
    if(n%2 == 0)
    printf("%d\n", i);
  }
return 0;
}
```

6)
```
#include <stdio.h>
#include <math.h>
int main()
{
float area, volume, r, h;
int i, t=0;
float pi = 3.14;
do
{

printf("Enter 1: cylinder 2: cone 3: sphere
                4: exit\n");
scanf("%d", &i);
switch(i)
   {
```

store
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6) then

```
case 1:
printf ("enter radius \n");
scanf ("%f", &r);
printf ("enter height \n");
scanf ("%f" &h);
area = (2* Pi * r * h) + (2 * Pi * r * r);
volume = (Pi * r * r * h);
printf ("The area and volume of
        cylinder is %f and %f \n", area,
                                volume);
break;
case 2:
printf ("enter radius \n");
scanf ("%f", &r);
printf ("enter height \n");
scanf ("%f", &h);
area = pi * r * (r + sqrt((h*h)+(r*r)));
Volume = Pi * r * r * (h/3);
Printf ("the area and volume of cone
        is %f and %f \n", area,
                                volume);
case 3:
printf ("enter radius \n");
scanf ("%f", &r);
```

printf area = 4 * Pi * r * r;
volume = (4/3) * Pi * r * r * r;
printf (" the area and volume of
sphere is %.f and %.f \n", area,
volume);

break;
case 4:
t = 1;
break;
}
} while (t != 1);
return 0;
}

store
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7)
```
#include <stdio.h>
#include <string.h>
void main()
{

char name[100][100]; int n, k, c, i=0, j=0, d=0;
do
{
printf("Enter the number of students:");
scanf("%d", &n);
printf("Enter name of the student and course
respectively \n 1 for internet of things \n
2 for advanced java and J2EE \n 3 for
advanced data ~~stu~~ structure);
for(k=0; k<n; k++)
{

scanf("%s %d", name[i], &c);
}
for(k=0; k<n; k++)
{

if(c==1)
i++;
```

```
        if (c==2)
            j++;
        if (c==3)
            d++;
    }
} while (i<30 || j<30 || d<30);

printf("students in internet of
        things : %d", i);
printf("students in advanced java
        and J2EE; %d", j);
printf("students in advanced data
        structure : %d", d);

}
```