C assignments – Day 10 (6-Sept-2022)

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Que1- Write a program to find the greatest of the four numbers using nested if-else.

```c
#include <stdio.h>
void main()
{
    int a, b, c, d, e;
    printf("Enter four numbers\n");
    scanf("%d%d%d%d", &a, &b, &c, &d);
    if (a > b)
    {
        if (a > c) // a is greater than b & c.
            e = a;
        else // c is greater than a & b.
            e = c;
    }
    else
    {
        if (b > c) // b is greater than a & c.
            e = b;
        else // c is greater than a & b.
            e = c;
    }
    d > e ? e = d : e;
    printf("The greatest of entered numbers is: %d", e);
}
```

Que2- Write a program to read age, gender and the category from the user (category codes – general- 111, obc-112, speciel-113) display their fees with respect to the following cases.

Age>18, gender- m, category-general → fees = 1000.

Age>18, gender- f, category-obc → fees = 800.

Age>18, gender- m, category-obc → fees = 800.

Age<18, gender- m, category-gen → fees = 300.

Age<18, gender- m, category-obc → fees = 200.

Age<18, gender- f, category-gen → fees = 100.

Age<18, gender- f, category-obc → fees = 50.

```c
#include <stdio.h>

void main()
{
    int age, category;
    char gender;
    printf("Enter your gender\n");
    scanf("%c",&gender);
    printf("Enter your age and category\n");
    scanf("%d%d",&age, &category);

    if (age > 18 && gender == 'm' && category == 111)
        printf("As per your details, your fees would be Rs.1000");
    else if (age > 18 && gender == 'f' && category == 112)
        printf("As per your details, your fees would be Rs.800");
    else if (age > 18 && gender == 'm' && category == 112)
        printf("As per your details, your fees would be Rs.800");
    else if (age < 18 && gender == 'm' && category == 111)
        printf("As per your details, your fees would be Rs.300");
    else if (age < 18 && gender == 'm' && category == 112)
        printf("As per your details, your fees would be Rs.200");
    else if (age < 18 && gender == 'f' && category == 111)
        printf("As per your details, your fees would be Rs.100");
    else if (age < 18 && gender == 'f' && category == 112)
        printf("As per your details, your fees would be Rs.50");
    else
        printf("Since you belong to speciel category, we will give you the
fees.");
}
```

Que3- Write a program to find the greatest of the four numbers.

```c
#include <stdio.h>
void main()
{
    int a, b, c, d, e;
    printf("Enter four numbers\n");
    scanf("%d%d%d%d", &a, &b, &c, &d);
    if (a > b)
    {
        if (a > c) // a is greater than b & c.
            e = a;
        else // c is greater than a & b.
            e = c;
```

```c
    }
    else
    {
        if (b > c) // b is greater than a & c.
            e = b;
        else // c is greater than a & b.
            e = c;
    }
    d > e ? e = d : e;
    printf("The greatest of entered numbers is: %d", e);
}
```

Que4- Write a program to find the smallest of the four numbers.

```c
#include <stdio.h>
void main()
{
    int a, b, c, d, e;
    printf("Enter four numbers\n");
    scanf("%d%d%d%d", &a, &b, &c, &d);
    if (a < b)
    {
        if (a < c) // a is greater than b & c.
            e = a;
        else // c is greater than a & b.
            e = c;
    }
    else
    {
        if (b < c) // b is greater than a & c.
            e = b;
        else // c is greater than a & b.
            e = c;
    }
    d < e ? e = d : e;
    printf("The smallest of entered numbers is: %d", e);
}
```