

Practical 3

Aim: Write and execute two programs using nested if, else and switch statement.

Theory:

Switch statement:

A switch statements allows a variable to be tested against several values for equality. Each of these values is called a case. Once a matching case is found, its particular block of code is executed. It is an alternative to the more common if-else statement.

Nested if-else :

When a series of decision is required, nested if-else is used. Nesting means using one if-else construct within another one.

Code :

1. To select the respective case statement depending upon the value of a character as given. If no statement is selected then the program should print, "No Search Found", H=Hockey, C=Gicket, B=Ball, F=Football, T=Tennis. (Switch statement).

→

```
#include <string.h>
```

```
#include <conio.h>
```

```
int main() {
```

```
printf("The codes for sports are : \n\t H= Hockey \n\t C=Gicket  

\t\t B=Ball \n\t F=Football \n\t T = Tennis. ");
```

```
printf("Enter your Favourite Sport's code:");
```

```
char choice = getch();
```

```
Switch (choice){
```

```
    case 'H' :
```

```
        printf("You selected Hockey");
```

```
        break;
```

```
    case 'C' :
```

```
        printf("You selected Cricket");
```

```
        break;
```

```
    case 'B' :
```

```
        printf("You selected Ball");
```

```
        break;
```

```
    case 'F' :
```

```
        printf("You selected football");
```

```
        break;
```

```
    case 'T' :
```

```
        printf("You selected Tennis");
```

```
        break;
```

```
    default :
```

```
        printf("No Search Found");
```

```
        break;
```

```
    }
```

```
}
```

2. To calculate the gross salary (gs) which is the combination of basic salary (bs), daily allowance (da) and house ~~tax~~ rent allowance (hra) from the data given. If the basic salary is more than 1500, then $hra = 500$ and $da = 10\%$ of bs, else $hra = 300$ and $da = 5\%$ of bs.

→

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

int main() {
    int gs, bs, hra;
    float da;

    printf("Enter your basic salary");
    scanf("%d", &bs);

    if (bs > 1500) {
        hra = 500;
        da = bs * 0.1;
        gs = bs + da + hra;
    }
    else {
        hra = 300;
        da = bs * 0.05;
        gs = bs + da + hra;
    }

    printf("The gross salary is %.2f", gs);
}
```

Conclusion: So, I wrote the two codes using nested if else and switch statements respectively.