

Datatypes and Format Specifiers Assignment

1. WAP to read the following information at run time and to display. Choose appropriate data type and format specifier.

1. username [maximum of length 125]
2. age
3. Salary [float]
4. Designation code [as short type with values {1, 2, 3, 4, 5, 6}]
5. Gender [a single char field]

user60@trainux01: ~/Batch17OCT2024_175/Assignments/Day06/Datatypes_and_Format

```
1 #include <stdio.h>
2
3 int main() {
4     char username[125];
5     int age;
6     float salary;
7     short designation_code;
8     char gender;
9     printf("Enter username: ");
10    fgets(username, sizeof(username), stdin);
11
12    printf("Enter age: ");
13    scanf("%d", &age);
14
15    printf("Enter salary: ");
16    scanf("%f", &salary);
17
18    printf("Enter designation code (1-6): ");
19    scanf("%hd", &designation_code);
20
21    printf("Enter gender (M/F): ");
22    scanf(" %c", &gender);
23    printf("Username: %s", username);
24    printf("Age: %d\n", age);
25    printf("Salary: %.2f\n", salary);
26    printf("Designation Code: %hd\n", designation_code);
27    printf("Gender: %c\n", gender);
28
29    return 0;
30 }
31
```

```

user72@trainux01:~$ vi format.c
user72@trainux01:~$ gcc format.c
user72@trainux01:~$ ./a.out
Enter username: Chaithra S K
Enter age: 22
Enter salary: 30000
Enter designation code (1-6): 4
Enter gender (M/F): F

*****
Username: Chaithra S K
Age: 22
Salary: 30000.00
Designation Code: 4
Gender: F
*****

```

2. WAP to read a user choice as 'y' or 'Y' or 'n' or 'N' and display read choice as "Yes" or "No" according to the input received.

'y' or 'Y' → display "Yes"

'n' or 'N' → display "No"

for any other character received → display "invalid character" and exit

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```

1 #include <stdio.h>
2
3 int main() {
4     char choice;
5     printf("Enter your choice (Y|N): ");
6     scanf("%c", &choice);
7     if (choice == 'y' || choice == 'Y') {
8         printf("Yes\n");
9     } else if (choice == 'n' || choice == 'N') {
10        printf("No\n");
11    } else {
12        printf("Invalid character\n");
13    }
14
15    return 0;
16 }
17
~

```

```

user72@trainux01:~$ vi yns.c
user72@trainux01:~$ gcc yns.c
user72@trainux01:~$ ./a.out
Enter your choice (Y|N): Y
Yes
user72@trainux01:~$ gcc yns.c
user72@trainux01:~$ ./a.out
Enter your choice (Y|N): g
Invalid character
user72@trainux01:~$ ./a.out
Enter your choice (Y|N): N
No

```

3. WAP to read a number in decimal (0-127) and display it in 2 digit hex characer.

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```
1 #include <stdio.h>
2
3 int main() {
4     int number;
5     printf("Enter a number (0-127): ");
6     scanf("%d", &number);
7     if (number >= 0 && number <= 127) {
8         printf("The number in hexadecimal: %02X\n", number);
9     } else {
10        printf("Invalid input! Enter a number between 0 and 127.\n");
11    }
12
13    return 0;
14 }
15
```

```
user72@trainux01:~$ gcc datatype.c
user72@trainux01:~$ ./a.out
Enter a number (0-127): 45
The number in hexadecimal: 2D
user72@trainux01:~$ ./a.out
Enter a number (0-127): 78
The number in hexadecimal: 4E
```