Printf Scanf Assignment

Q1. WAP with

1a. function readdisplay() to read the following data types only one at a time at run time and to display.

1. char type
2. integer type
3. char array of maximum 80 characters
4. short type
5. float type

TestData:

'c', 8978, "hello", 8, 45.678

'H', 254, "hello Hi How", 256, 145.2678

Sol:

```
#include <stdio.h>

#include <string.h>

void readdisplay() {

    char c;

    int i;

    char str[80];

    short s;

    float f;

    printf("Enter a char: ");

    scanf(" %c", &c);

    printf("You entered char: %c\n", c);

    printf("Enter an integer: ");

    scanf("%d", &i);

    printf("You entered integer: %d\n", i);

    printf("Enter a string (max 80 chars): ");

    scanf(" %[^\n]", str);

    printf("You entered string: %s\n", str);

    printf("Enter a short integer: ");

    scanf("%hd", &s);
```

```c
    printf("You entered short: %hd\n", s);

    printf("Enter a float: ");

    scanf("%f", &f);

    printf("You entered float: %.2f\n", f);

}

int main() {

    readdisplay();

    return 0;

}
```

Output:


```
user57@trainux01:~/Batch17OCT2024/function/print$ vi print1.c
user57@trainux01:~/Batch17OCT2024/function/print$ gcc print1.c
user57@trainux01:~/Batch17OCT2024/function/print$ ./a.out
Enter a char: N
You entered char: N
Enter an integer: 2
You entered integer: 2
Enter a string (max 80 chars): Ishu
You entered string: Ishu
Enter a short integer: 1
You entered short: 1
Enter a float: 45.78
You entered float: 45.78
```

2. Try to run the program with code snippet below. Check the output and analyse. Fix it to get correct result.

```c
#include<stdio.h>
int main()
{
unsigned long int ul = 200333333334340;
printf("value is:%d\n", ul);
return 0;
}
```
Sol:

```c
#include<stdio.h>

int main(){

    unsigned long int ul = 200333333334340;

    printf("value is: %lu\n", ul);  // Use %lu for unsigned long int

    return 0;

}
```

Output:

```
user57@trainux01:~/Batch17OCT2024/function/print$ vi print2.c
user57@trainux01:~/Batch17OCT2024/function/print$ gcc print2.c
user57@trainux01:~/Batch17OCT2024/function/print$ ./a.out
value is: 200333333334340
```