**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]

A.

#include <stdio.h>

int main()

{

char username[126];

int age;

float salary;

short designation\_code;

char gender;

printf("Enter username (max 125 characters): ");

scanf("%125[^\n]", username);

printf("Enter age: ");

scanf("%d", &age);

printf("Enter salary: ");

scanf("%f", &salary);

printf("Enter designation code (1-6): ");

scanf("%hd", &designation\_code);

printf("Enter gender (M/F): ");

scanf(" %c", &gender);

printf("\n--- Employee Information ---\n");

printf("Username: %s\n", username);

printf("Age: %d\n", age);

printf("Salary: %.2f\n", salary);

printf("Designation Code: %hd\n", designation\_code);

printf("Gender: %c\n", gender);

return 0;

}

A screen shot of a computer

Description automatically generated

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’à display “Yes”

‘n’ or ‘N’à display “No”

for any other character received à display “invalid character” and exit

A.

#include <stdio.h>

int main()

{

char choice;

printf("Enter your choice (y/Y for Yes, n/N for No): "); scanf("%c", &choice); // Read a single character

if (choice == 'y' || choice == 'Y')

{

printf("Yes\n");

}

else if (choice == 'n' || choice == 'N')

{

printf("No\n");

}

else

{

printf("Invalid character\n");

return 1;

}

return 0;

}

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Description automatically generated

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

A.

#include <stdio.h>

int main()

{

int decimal;

printf("Enter a decimal number (0-127): ");

scanf("%d", &decimal);

if (decimal < 0 || decimal > 127)

{

printf("Invalid input. Please enter a number between 0 and 127.\n");

}

else

{

printf("The number in 2-digit hexadecimal is: %02X\n", decimal);

}

return 0;

}

A computer screen shot of numbers and digits

Description automatically generated