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Write a program that takes a number as input and converts it into different data types such as integer, float, and string.

## Program In C

## C

```
#include <stdio.h>
#include <stdlib.h>
int main() {
    char number[50];
    int integer_number;
    float float_number;
    char string_number[50];
    printf("Enter a number: ");
    scanf("%s", number);
    // Convert to integer
    integer_number = atoi(number);
    // Convert to float
    float_number = atof(number);
    // Convert to string
    sprintf(string_number, "%s", number);
```

Converts a number into integer, float, and string

```
printf("Integer value: %d\n", integer_number);
printf("Float value: %.2f\n", float_number);
printf("String value: %s\n", string_number);
return 0;
}
```


## Explanation:

- In this C program, we declare variables to store the number in different data types: integer_number for the integer, float_number for the float, and string_number for the string.
- The scanf function is used to read the user input as a string into the number variable.
- Then, the atoi function is used to convert the string to an integer and store it in the integer_number variable.
- The atof function is used to convert the string to a float and store it in the float_number variable.
- The sprintf function is used to convert the string to a string (a copy of the input) and store it in the string_number variable.
- Finally, the converted values are printed using printf.


## Output:

## Output

Enter a number: 4
Integer value: 4
Float value: 4.00

## Program In Java <br> Java

```
import java.util.Scanner;
public class NumberConversion {
    public static void main(String[] args) {
        String number;
        int integerNumber;
        float floatNumber;
        String stringNumber;
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter a number: ");
        number = scanner.next();
```

        // Convert to integer
        integerNumber = Integer.parseInt(number);
        // Convert to float
        floatNumber = Float.parseFloat(number);
        // Convert to string
        stringNumber = number;
        System.out.println("Integer value: " + integerNumber);
    ```
System.out.printf("Float value: %.2f\n", floatNumber); System.out.println("String value: " + stringNumber);
\}
\}
```


## Explanation:

1. import java.util.Scanner;: This line imports the Scanner class from the java.util package. It is used for reading user input.
2. public class NumberConversion: This line declares a public class named NumberConversion.
3. public static void main(String[] args): This is the main method that serves as the entry point of the program.
4. String number;, int integerNumber;, float floatNumber;, and String stringNumber;: These lines declare variables to store the input number in different formats.
5. Scanner scanner = new Scanner(System.in);: Creates a new Scanner object named scanner to read user input from the console.
6. System.out.print("Enter a number: ");: Prints a prompt message to enter a number.
7. number = scanner.next();: Reads the input number as a string using scanner.next().
8. integerNumber = Integer.parseInt(number);: Converts the input string number to an integer using Integer. parselnt().
9. floatNumber = Float.parseFloat(number);: Converts the input string number to a float using Float.parseFloat().
10. stringNumber = number;: Assigns the input string number directly to the stringNumber variable.
11. System.out.printIn("Integer value: " + integerNumber);, System.out.printf("Float value: \%.2fln", floatNumber);, and System.out.println("String value: " + stringNumber);: These lines print the converted values of the input number in integer, float, and string
formats.

## Output

Enter a number: 4
Integer value: 4
Float value: 4.00
String value: 4

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