**PROBLEM STATEMENT:**

Give a code that designs a single manipulator to provide the following output specification.

1. 10 columns width
2. Right justified
3. Two digits precision
4. Unused spaces filled with ‘\*’
5. Trailing zeros shown

Also give the statement by which you invoke this manipulator

**PROGRAM CODE:**

**#include<iostream>**

**#include<conio.h>**

**using namespace std;**

**ostream& usermanip(ostream& output)**

**{**

**output.width(10);**

**output.precision(2);**

**output.fill('\*');**

**output.setf(ios::showpoint); //Trailing zeros are shown**

**output.setf(ios::right,ios::adjustfield); //Right-justification**

**output.setf(ios::fixed,ios::floatfield); //Fixed representation**

**return output;**

**}**

**int main()**

**{**

**float num;**

**z:**

**cout<<"\nenter the floating point number: ";**

**cin>>num;**

**cout<<usermanip;**

**cout<<num;**

**goto z;**

**getch();**

**return 0;**

**}**

**OUTPUT:**

enter the floating point number: 1.2234

\*\*\*\*\*\*1.22

enter the floating point number: 3.45

\*\*\*\*\*\*3.45

enter the floating point number: 2

\*\*\*\*\*\*2.00

enter the floating point number: -9.009

\*\*\*\*\*-9.01

enter the floating point number: -9.005

\*\*\*\*\*-9.01

enter the floating point number: -10.89

\*\*\*\*-10.89

enter the floating point number: -15567.889

\*-15567.89

enter the floating point number: +23232.00999

\*\*23232.01

**RESULT:**

Hence a user-defined manipulator is created with the given specifications and used in the program to format the display of floating point numbers as required.