

KODNEST ASSIGNMENT 3

Submitted by

Name : YADHUKRISHNA MK

Email : yadhu8824@gmail.com

1. What is the range of data you can store in double and float ?
2. How many digits permitted after decimal point in double and float ?

In Java, the **float** and **double** data types are used to represent floating-point numbers. The **float** type is a single-precision 32-bit floating-point number, while the **double** type is a double-precision 64-bit floating-point number.

The range and precision of these data types are defined by the IEEE 754 floating-point standard, which Java adheres to.

For **float**:

- Range: Approximately $\pm 1.4\text{E-}45$ to $\pm 3.4\text{E+}38$
- Precision: Approximately 6-7 decimal digits

For **double**:

- Range: Approximately $\pm 4.9\text{E-}324$ to $\pm 1.7\text{E+}308$
- Precision: Approximately 15 decimal digits.

It's important to note that these are approximate values because the exact range and precision can vary slightly depending on the specific Java implementation.