Type Casting

Definitions:

Type Casting:

Converting one data type into another.

Example: byte b = (byte)(a); where a is int.

Unicode and ASCII:

Unicode is a universal character encoding Standard

ASCII is a Subset of unicode representing characters with numerical Values.

Ex: int num = 'A';

Mixed Data Types in Expressions:

When different data types are used in an expression the result is promoted to the largest data type.

Ex:- double res = (f * b2) + (i/ci) - (d # s);

Algorithm:

1. Initialize Scanner:

Create a Scanner object named in to read input from the user.

2. Type casting and Errors:

Attempt to initialize an int variable with a float value.

correctly initialize a byte variable from an int using type casting and modulo operation.

3. Arithmetic Operations with Type Casting:

Perform multiplication and division on byte values and store the result in it.

4. UniCode and ASCII Value:

Initialize an int with a character to get its ASCII Value.

5. Mixed Arithmetic Operations: Perform multiplication of an int and a double to get a double result.

6. Complex Expression: Combine various data type in an arithmetic expression and store the result in double.