

4

Variables

What is Variable

- › Variable is a named memory location in RAM, to store a particular type of value, during the program execution.

Understanding Variables

- › All Variables will be stored in Stack.
- › For every method call, a new "Stack" will be created.
- › The variable's value can be changed any no. of times.
- › The variables must be declared before its usage.
- › The variables must be initialized before reading its value.
- › Variable's data type should be specified while declaring the variable; it can't be changed later.
- › The stack (along with its variables) will be deleted automatically, at the end of method execution.

Stack

variable2

value

variable1

value

How to create variables?

1 Syntax to Create a variable

```
DataType VariableName;
```

2 [or] Declaration with initialization

```
DataType VariableName = value;
```

3 Set value into Variable

```
VariableName = value;
```

4 Get Value from Variable

```
VariableName
```

Variable / Identifier Naming Rules

- Variable name should not contain spaces.

⊗ ~~Student Name~~

✓ StudentName

- Variable name should not have special characters [except underscore].

⊗ ~~Student#Name~~

✓ StudentName

- Duplicate variable names are not allowed.

⊗ ~~int x;~~
~~double x;~~

✓ int x;

- Variable names can't be same as keywords

⊗ ~~int void;~~

✓ int StudentNo;