

Data Types

byte	8 bits	0
short	16 bits	0
int	32 bits	0
long	64 bits	0L
boolean	bit	false
char	16 bit unicode	x
float	32 bit decimal	0.0f
double	64 bit decimal	0.0d

(='w')/

Array : collection of values
 String : immutable, arranged set of characters
 Class : Blueprint of the object
 Java Script : public class Main{
 -
 public static
 void main(s tring[] args){
 -
 }
 -
 }

(='w=')/

byte[-128 to 128][-2⁷ to 2⁷ -1]
 short[-2¹⁵ to 2¹⁵-1]
 int[-2³¹ to 2³¹-1]
 long[-2⁶³ to 2⁶³-1]

Algorithm

An algorithm (pronounced AL-go-ri-th-um) is a procedure or formula for solving a problem. Just like you have a recipe to cook food that has step-b y-step instru ctions, in progra mming you have an algorithm that has step-b y-step instru ctions.
 Examples:
 Sorting Algorithm
 Swap Algorithm
 Search Algorithm

Algorithm (cont)

> Simple Algorithm to swap the values of two variables.
 Examples:
 int a = 4;
 int b = 3;
 int temp = a; //back up the value of a
 a = b;
 b = temp;
 Simple Algorithm to swap the values of two items in a list.
 Examples:
 public static void swap(int[] list, int e1, int e2){
 int temp = list[e1];
 list[e1] = list[e2];
 list[e2] = temp;
 }

Decision Making

(if/else)
 An if sta tement can be followed by an option al els e s tat ement, which executes when the Boolean expression is false.
 Examples:
 if(Boo lea n_e xpr ession 1){
 //E xecutes when the Boolean expression 1 is true
 }else if(Boo lea n_e xpr ession 2){
 //E xecutes when the Boolean expression 2 is true
 }else if(Boo lea n_e xpr ession 3){
 //E xecutes when the Boolean expression 3 is true
 }else {
 //E xecutes when the none of the above conditions is true.
 }

Decision Making (cont)

> (Switch)
 A switch statement allows a variable to be tested for equality against a list of values. Each value is called a case, and the variable being switched on is checked for each case.
 Examples:
 switch(expression){
 case value :
 //Statements
 break; //optional
 case value :
 //Statements
 break; //optional
 //You can have any number of case statements.
 default : //Optional
 //Statements
 }