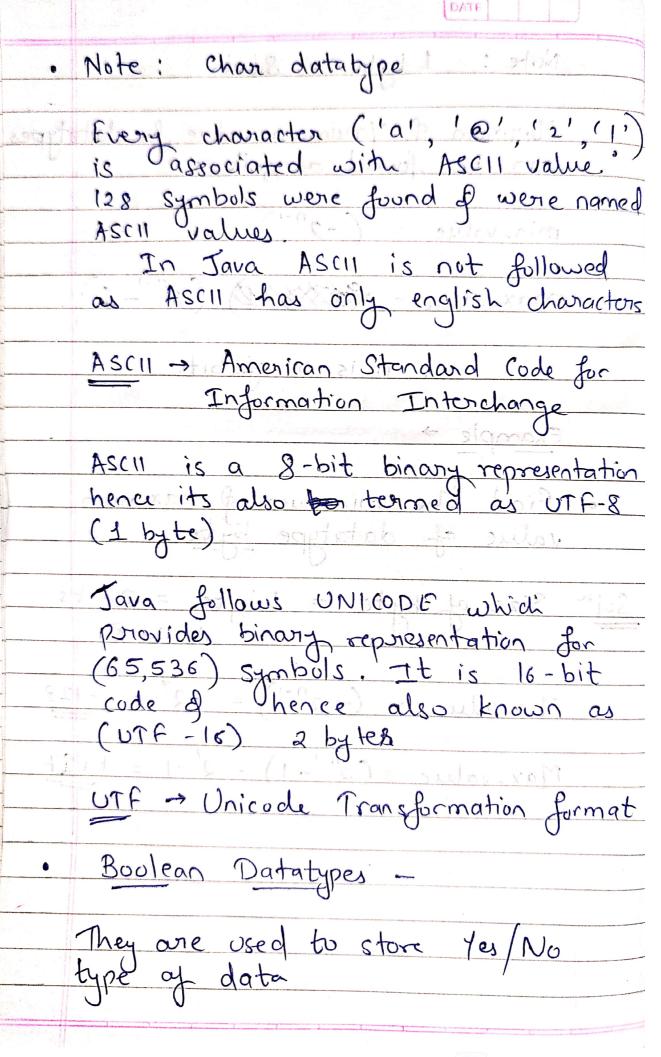
Code Cosmos chapter 3: Datatypes & Variables What are Datatypes? Datatypes specify different sizes of values of a data. As the name suggests, Type of a Data is termed datatype There are 2 types of data types in Java > O Primitive Datatypes: They include char, boolean, chan Byte, Vint, long, Short, float & double 2) Non Primitive Datatypes: They include classes, Interfaces of Arrays · What are variables? Variable is a container which holds value while Java program is executed. A variable is assigned a datatype such that the variable store value of assigned datatype only.

There are 8 perimitive Datatypes (D) Boolean (S) Int (D) Byte (C) long (D) Char (T) float (D) Short (B) double (D) Datatype (D) Def value (D) Size (D) Boolean (S) alse (1 bit) (L) Char (Noooo' 2 byte (S) Byte (D) (1 byte (S) Short (D) (2 byte (S) Short (D) (4 byte (C) Long (D) (B) byte			edge Cosmoo	PAGE No.: DATE
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J		Double	0.00	8 byte
				J

1 byte = 8 bits Note: Minimum of Massimum value for datatypes can be found as follows min-value = (-2ⁿ⁻¹) max-value = (() the branches is not af bits- 1024 example > . Find the minimum of maximum value of datatype byte. Soln Size of byte = 1 byte = 8 bits Min-value = $(-2^{n-1}) = -2^7 = -128$ $Max-value = (2^{n-1}-1) = 2^{7}-1 = +127$

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int, short, byte Datatypes They are used to store number values, All of them differ in sizes in order to store data long datatype also stores number type Vialues 101 float of double Datatypes They are used to store decimal values. They both differ in How to declare a variable in Java? Syntax: datatype var-name = value. where datatype will be one of the Java's datatype like (int, char, long etc) Var-name is name of the variable like (a, name, newvariable etc) value is the data assigned to the variable.

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	Note: String Datatype -> its
	stores text such as "Hello"
٠	String values are surrounded by n,
<u> </u>	It is a non-primitive datatype.
•	A variable name can consists of
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