DAY-8 [CONTINUE.....DATATYPE]

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FLOATING POINT DATATYPE:

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1.FLOAT

2.DOUBLE

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1.FLOAT

----->SIZE = 4 BYTES

------> RANGE = -3.4e38 to 3.4e 38

------>float is used whenever we need less accuracy [single precision]

------>by default real numbers are considered datatype as double.However programmer can explicitly make it as float by suffixing the data

with f(both uppercase & lowercase are allowed)

eg:1

class FloatExample

{

public static void main(String[] args)

{

float height=5.9f;

float weight=74.65F;

System.out.println(height);

System.out.println(weight);

}

}

-------------------------------------------------------------------------------------------------

2.DOUBLE

-------> SIZE = 8 BYTES

-------> RANGE = -1.7e308 to +1.7e308

------>by default all the real number in is consisdered as double.

------>double is used whenever we need more accuracy [double precision]

eg;

class DoubleExample

{

public static void main(String[] args)

{

double exetime=1.42536273632;

double calc=3.14768746372864;

System.out.println(exetime);

System.out.println(calc);

}

}

----------------------------------------------------------------------------------------------------------------------

INTERNAL IMPLEMENTATION OF REAL NUMBER:

{CHECK OUT THE DIAGRAM GIVEN IN THE CLASS}

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NON-NUMERIC DATATYPE:

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1.BOOLEAN

2.CHAR

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1.BOOLEAN:

------>SIZE : ONE BIT

------>RANGE : NOT APPLICABLE

eg:

class BoolExample

{

public static void main(String[] args)

{

boolean is\_married=false;

boolean job=true;

//boolean a=0;----------------->invalid [0 is considered as int]

//boolean a=1;----------------->invalid [1 is considered as int]

//boolean a=True;--------> error[cannot find the symbol]

//boolean a=False;------->error[cannot find the symbol]

//boolean a=TRUE;----------->invalid[java is case sensitive only lower case true and false is accepted]

//System.out.println(is\_married);

//System.out.println(job);

System.out.println(a);

}

}

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2.CHAR

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C/C++ PROGRAMMING LANGUAGE WILL PROVIDE 1 BYTE FOR THE CHAR DATATYPE.WHERE AS JAVA WILL PROVIDE 2 BYTE FOR THE CHAR DATATYPE.

------>

Incase of c and c++ it makes use of ASCII format and support only 256 symbols hence 1 byte is sufficient.

java is internet programming language it should support character from all the languages present in the uiverse.

hence it fallows UNICODE FORMAT[UTF-16] UNIVERSAL TRANSFER FORMAT. It will support 65536 symbols

note: JAVA IS CASE SENSITIVE.

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