1.WHAT IS THE DIFFERENCE BETWEEN JAVA AND JAVA SCRIPT?

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1.JAVA

TYPE

JAVA IS A STATICALLY TYPED LANGUAGE LANGAUGE.THIS MEANS THAT YOU MUST DECLARE THE DATA TYPE OF A VARIABLE BEFORE USING IT.

OBJECT ORIENTED

JAVA IS A PURE OBJECTORIENTED PROGRAMMING LANGUAGE. EVERYTHING IN JAVA IS AN OBJECT. AND ITS FOLLOWS STRIC OOP PRINCIPLE.

STANDALONE

JAVA IS A STANDALONE LANGUAGE.YOU CAN WRITE COMPLETE APPLICATION USING HAVA WITHOUT NEEDING TO INTEGRATE THEM INTO OTHER WEB TECHNOLOGY.

COMPILATION

JAVA PROGRAMS NEED TO BE COMPILED BEFORE EXECUTION. THE SOURCE CODE IS COMPILED INTO BYTECODE, WHICH RUNS ON THE JAVA VIRTUAL MACHINE.

COMPLEXITY

JAVA IS A CONSIDERED COMPLEX DUE TO ITS STRICT RULES AND EXTENSIVE FEATURES

MEMORY STORAGE

JAVA PROGRAMS REQUIRED MORE MEMORY COMPARES TO JAVASCRIPT.

2JAVASCRIPT

TYPE

JAVASCRIPT IS A DYANMICALLY TYPED LANGUAGE. YOU DON’T NEED TO SPECIFY THE DATA TYPE OF A VARIABLE EXPLICITY.

OBJECT BASED

JAVA SCRIPT IS AN OBJECT BASED LANGUAGE WHILE ITS SUPPORTS OBJECTS, IT’S DOESEN’T STRICTLY ADHERE TO OOP PRINCIPLE.

INTEGRATION

JAVASCRIPT IS NOT A STANDALONE. IT’S NEED TO BE INTEGRATED INTO A HTML PROGRAM FOR EXECUTION IN WEB BROWSERS.

COMPILATION

JAVASCRIPT CODE IS INTERPRETED BY THE BROWSER DIRECTLY. NO SEPRATE COMPILATION STEPS

REQUIRED

JAVSCRIPT IS EASIE TO LEARN COMPARED TO JAVA.

2.WHAT IS JAVASCRIPT?

JAVASCRIPT IS A PROGRAMMING LANGUAGE THAT ADDS DYNAMICS FUNCTIONALITY AND COMPLEX FEATURES LIKE INTERACTIVITY AND ANIMATION TO WEB PAGES.

JAVASCRIPT IS TYPE SCRIPTING LANGAUGE.JAVASCRIPT IS PRIMARILY USED FOR CLIENT-SIDE SCRIPTING. IT RUNS DIRECTLY IN THE USER’S WEB BROWSER, ENHANCING THE USER EXPERIENCE.

COMMON USES

INTERACTIVE WEB PAGES

ANIMATION AND EFFECTS

HANDLING USER EVENTS

AJAX

WEB API

3.WHAT ARE THE DATA TYPE SUPPRORTED BY JAVASCRIPT?

JAVASCRIPT SUPPORTS SERVAL TYPES DATA TYPES.

1.STRING

2.NUMBERS

3.BIGINT ()

4.BOOLEAN

5.UNDEFINED

6.NULL

7.SYMBOLS

8.OBJECTS

4.WHAT ARE THE SCOPE OF A VARIABLE IN JAVASCRIPT?

THERE ARE THREE TYPES OF VARIABLE SCOPE IN JAVASCRIPT.

1.GLOBAL SCOPE

VARIABLE DECLARE OUTSIDE OF ANY FUNCATIONS OR BLOCK HAVE GLOBAL SCOPE.THEY CAN ACCESSED FROM ANY WHERE IN YOUR CODE INCLUDING WITHIN FUNCTION AND BLOCKS.

2.LOCAL SCOPE.

VARIABLE DECLARED WITHIN A FUNCTION HAVE LOCAL SCOPE.THEY ARE ACCESSIBLE ONLY WITHIN THE FUNCTION IN WHICH THEY ARE DECLARED.

3.BLOCKSCOPE.

VARIABLES DECLARED USING LET OR CONST WITHIN A BLOCK HAVE A BLOCK SCOPE.THIS MEANS THEY ARE ACCESSIBLE ONLY WITHIN THE BLOCK IN WHICH THEY ARE DECLARED

5.WHAT IS CALLBACK?

A CALLBACK IN JAVASCRIPT REFERS TO A FUNCTION THAT IS PASSED AS AN ARGUMENT TO ANOTHER FUNCTION AND IS EXECUTED AFTER SOME OPERATION OR TASK HAS BEEN COMPLETED.CALLBACKS ARE COMMONLY USED IN ASYNCHRONOUS PROGRAMMING TO HANDLE TASKS THAT MAY TAKE SOME TIME TO COMPLETE, SUCH AS A FETCHING DATA FROM SERVER, READING FILES, OR EXECUTING ANIMATIONS.

6 WHAT IS CLOSURE? GIVE EXAMPLE.

A CLOSURE IN JAVASCRIPT IS A COMBINATION OF A FUNCTION AND THE LEXICAL ENVIRONMENT WITHIN WHICH THAT FUNCTION THAT DECLARE. THIS ALLOWS THE FUNCTION TO RETAIN ACCESS TO VARIABLES AND PARAMETERS FROM ITS OUTER SCOPE EVEN AFTER THE OUTER SCOPE HAS FINESHED EXECUTING. IN SIMILAR TERMS A CLOSURE GIVE A FUNCTION ACCESS TO ITS PARENTS SCOPE, EVEN AFTER THE PARENT FUNCTON HAS COMPLETED EXECUTIN.

7. WHAT IS THE DIFFERENCE BETWEEN THE OPERATORS == AND ===?

IN JAVASCRIPT == AND === BOTH ARE USED TO COMPARISON OF TWO VARIABLE.BUT THEY ARE DIFFERENT BEHAVIORS.

HERE == OPERATOR CHECK ONLY VARIABLE AND ITS ASIGN VALUE ARE SAME OR NOT.

AND === OPERATOR CHECKS VARIABLE AND ITS ASIGN VALUE DATATYPE ARE SAME OR NOT.

8.WHAT IS THE DIFFERENCE BETWEEN NULL AND UNDEFINED?

NULL AND UNDEFINED BOTH ARE PRIMITIVE DATA TYPES.NULL REPRESENTS THE INTENTIONAL ABSENCE OF ANY OBJECT VALUE.UNDEFINED INDICATES A VARIABLE HAS BEEN DECLARED BUT HAS NOT BEEN ASSIGNED A VALUE YET.

9.WHAT WOULD BE THE RESULT OF 2+5+”3”?

THE EXPRESSION 2+5+”3” WILL RESULT IN A STRING CONCATENATION.

2+5=7 IS NUMERIC ADDITION.AND “3” PERFORMS CONCATENATION.RESULTS 73.

10. WHAT IS THE DIFFERENCE BETWEEN CALL AND APPLY?

IN JAVASCRIPT BOTH CALL () AND APPLY () ARE METHODS USED TO INVOKE FUNCTIONS,

CALL ()

THE CALL METHOD IS USED TO INVOKE A FUNCTION WITH A SPECIFIED THIS VALUE AND INDIVIDUAL ARGUMENTS PROVIDED AS A SEPRATE ARGUMENTS. ITS ALLOWS YOU TO CALL FUNCTION WITH A SPECIFIC THIS CONTEXT AND APASS THE ARGUMENTS TO THE FUNCTION AS COMMA-SEPARTED VALUES.

APPLY ()

THE APPLY METHOD IS SIMILARTO CALL BUT IT ACCEPTS ARGUMENTS AS AN ARRAY OR AN ARRAY LIKE OBJECT. IT ALLOWS YOU TO CALL FUNCTION WITH A SPECIFIC THIS CONTEXT AND PASS ARGUMENTS TO THE FUNCTION AS AN ARRAY.