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Module Name : JSE (Java Standard Edition) [Core Java]

Sessions : 101 [92 sessions are offline + 8 - 9 session online Sunday 9:30AM]

70 Sessions : Advanced Java will start

Course Content : Paint (Notes + Diagram) [Create notes for bulleted points]

Lab is compulsory : Faculty will assign you the Assignment

Validity : 1 day

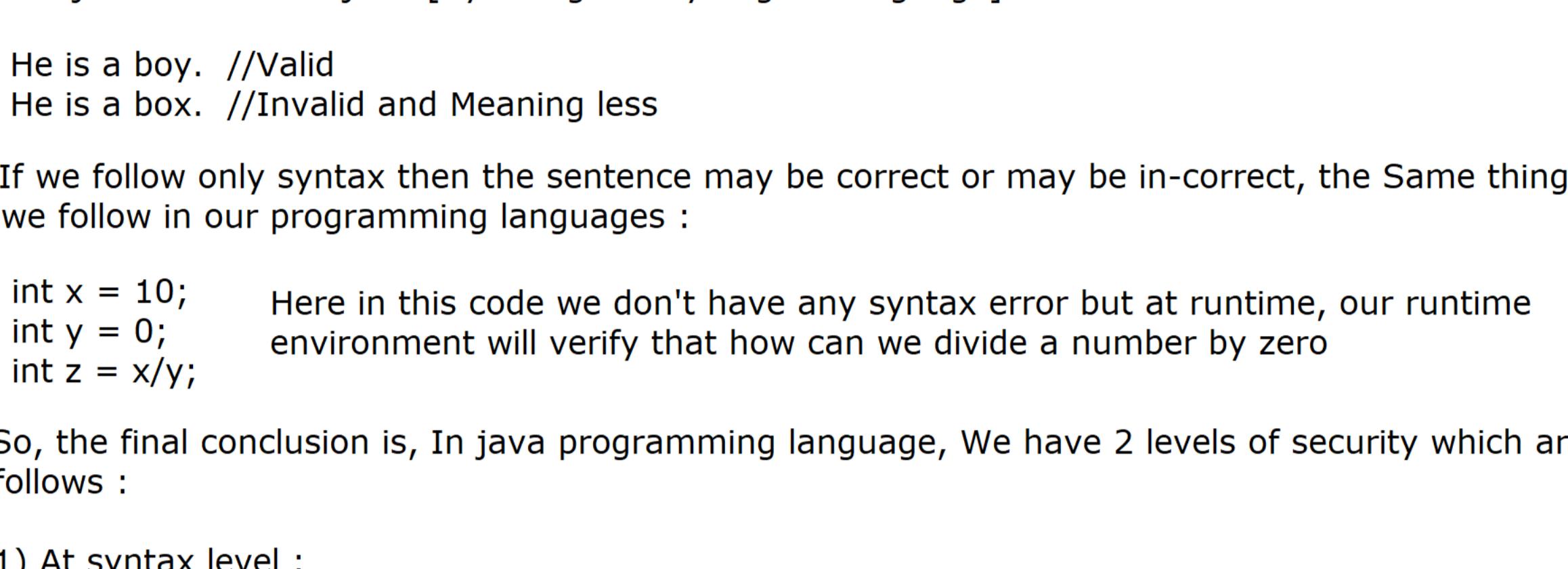
MCQ + FAQ : (1000 MCQ + 450 FAQ)

Core Java : 2+ years Experienced Developer

What is a Language ?

* A language is a communication media through which we can communicate with each other.

What is a Programming language ?



* A programming language is an intermediate between developer and computer System. A Developer can send some instruction to get the desired output.

* Every language contains two important characteristics :

- a) Syntax (Rules given by that particular language)
- b) Semantics (Structure OR Meaning given by the language)

* We are talking about english language

Subject + verb + object [Syntax given by english language]

He is a boy. //Valid

He is a box. //Invalid and Meaning less

* If we follow only syntax then the sentence may be correct or may be in-correct, the Same thing we follow in our programming languages :

```
int x = 10;      Here in this code we don't have any syntax error but at runtime, our runtime
int y = 0;       environment will verify that how can we divide a number by zero
int z = x/y;
```

* So, the final conclusion is, In java programming language, We have 2 levels of security which are as follows :

1) At syntax level :

Here our java code is verified by java compiler (javac), the compiler will only verify the syntax of the code.

2) At Semantics Level :

Here our runtime environment will verify whether the code is meaningful or meaning less.

What is Java ?

* Java is high level, Object oriented, platform independent, robust (strong), multi-threaded programming language.



* By using java language, We can develop various applications like

- 1) Stand-alone Application OR Desktop Application
- 2) Web applications OR websites
- 3) Mobile Application
- 4) Gaming Application
- 5) Enterprise Application
- 6) Distributed Application

* Actually, Java language was developed by sun-micro system in year 1996. The First version of java i.e. JDK 1.0 was released on 23rd January 1996.

* In the year 2010, Java was acquired by Oracle Corporation so, now java is the product of Oracle Corporation.