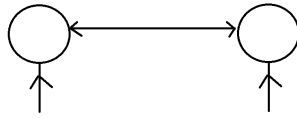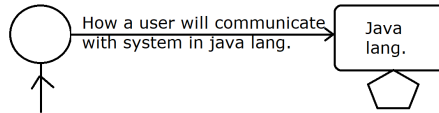Module Name : Core Java (JSE)
        Duration : 95 sessions
            Notes : Google CR (Paint Diagram + Text Note)
              Lab : Assign Dedicated Mentor (Monitor)
  Assignment : MCQs + Sample Coding Programs + Scenario based Programs
        Validity : 1 day Validity
   Course Completion : 2+ years
   Content : Will share in Google Class Room
   Days : Initially 6 days / Sunday Online class (1:30Hrs) 6-7 sunday class [Common]

What is a Language :
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   * 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 the user and computer system.
     By using programming languages, we can send the instrutions to the system and we
     will get the desired output.

     Our java programming language provides two important aspects :

     1) Syntax (Rule given by the programming language)
     2) Semantics (Meaning OR structure of the Programming Language)

Syntax :
----
* I want to create an English translation

     Subject + verb + Object

     He is a boy. //Valid
     He is a box. //Invalid

     If we will follow only syntax then every time we will not get proper expected result.
     With syntax we need to follow the semantics.

     int x = 10;
     int y = 0;
     int z = x/y;

     The above code is valid from syntax point of view but from semantics point of view, It
     is an invalid code because we can't divide a number by zero.

     So, the conclusion is, In our Java programming langauge we have 2 levels of security :

     a) Syntax Level : It is verified by compiler. It will simply verify whether code is
                              syntax wise valid of not ?

     b) Semantics Level : It is verified by our Runtime Environment, It will verify whether
                                 the code is meaningful or not ?

What is Java ?

Java is a Object Oriented, platform independent, secure, robust, multithreaded
programming language.

By using java langauge, we can develop various applications

     a) Stand-alone OR Desktop application
     b) Web application OR Websites
     c) Mobile application
     d) Enterpise Application
     e) Gaming Application

* Java was originally developed by sun micro system in the year 1995. The first version
   of Java was released on 23rd January 1996.

* Java is developed by James Gosling and his friends under "Green Project".

* Java language was overtaken by Oracle Corporation in the year 2010.

Flavors of java langauge :
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 * We have total 4 flavors in java :

 1) JSE (Java Standard Edition) [Core Java -> standalone application OR Desktop appln]

 2) JEE (Java Enterprise Edition) [Adv. Java -> Wesites]

 3) JME (Java Micro Edition) [Andorid Appln -> Mobile Apps]

 4) JavaFx [Outdated] -> We can develop GUI Applications