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| Department | Computer Science and Engineering (CSE) | | |
| Name: | Sai Manoj Etcherla | Enrolment No: | 112015044 |
| Year: | Second year | Semester: | 4th |
| Subject Code: | JAVA | Subject Name | JAVA |

Lab Assignment – 1

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| Q1 | Explain Compilation flow Java Program. |
| Ans-1 | Compilation flow of Java Program:  First we write a source file, let it be named Simple.java, which is in Java language. This language isn’t understood by Machine. So, we use a translator called compiler. This compiler converts source file into byte code which is named as Simple.class  Then JVM(Java virtual Machine) which is an interpreter converts byte code into machine understandable language and it is executed and output is displayed.  Basically, the whole process is:  Class file 🡪 Class loader 🡪 Bytecode verified 🡪 Interpreter 🡪 Runtime 🡪 Hardware. |
| Q2 | Explain types of Java Variable with proper examples. |
| Ans-2 | Types of Variables in Java are:   * Local variables * Static variables * Instance variables   **Local variable:**  A variable declared inside the body of the method is called local variable. You can use this variable only within that method and the other methods in the class cannot access this variable.  **Static variable:**  A variable that is declared as static is called a static variable. It cannot be local. Once a value is assigned to this variable it cannot be changed.  **Instance variable:**  A variable declared inside the class but outside the body of the method, is called an instance variable. It is not declared as static.  Example:  public class Main  {  static int staticNum = 8; //static variable  void method()  {  int localNum = 80; //local variable  }  public static void main(String args[])  {  int instanceNum = 50; //instance variable  }  } |
| Q3 | Write a Java program to display Welcome. |
| Ans-3 | **CODE:**    **OUTPUT:** |
| Q4 | Write a Java Program to assign byte, int, long, float, double, char, string value to variables and also display the same value on screen. |
| Ans-4 | **CODE:**    **OUPTUT:** |
| Q5 | Write a Java Program to explain Java Operators –  Unary Operator, Arithmetic Operator, Relational Operators, Logical Operators and Ternary Operator. |
| Ans-5 | **CODE:**    **OUTPUT:** |