



MALLA REDDY ENGINEERING COLLEGE

(Autonomous)

Maisammaguda(H), Gundlapochampally Village, Medchal
Mandal, Medchal-Malkajiri District, Telangana State – 500100

CIRCULAR

Date: 04/07/2018

All the 2nd /I Year/Sem students are hereby informed that the Malla Reddy Engineering College (Autonomous) is planning to organize Value Added Courses like Autonomous Robotics -I, Graphic Designing - I & II, Green Matte Studio - Audio Effects/Transitions, Design for Additive Manufacturing (Introduction to 3D Modeling), Foundations Of JAVA in Centre Of Excellence. In this regard Interested students are hereby directed to register for this Courses on or before 09/07/2018. For further details, please contact Centre of Excellence, MREC(A)


Principal

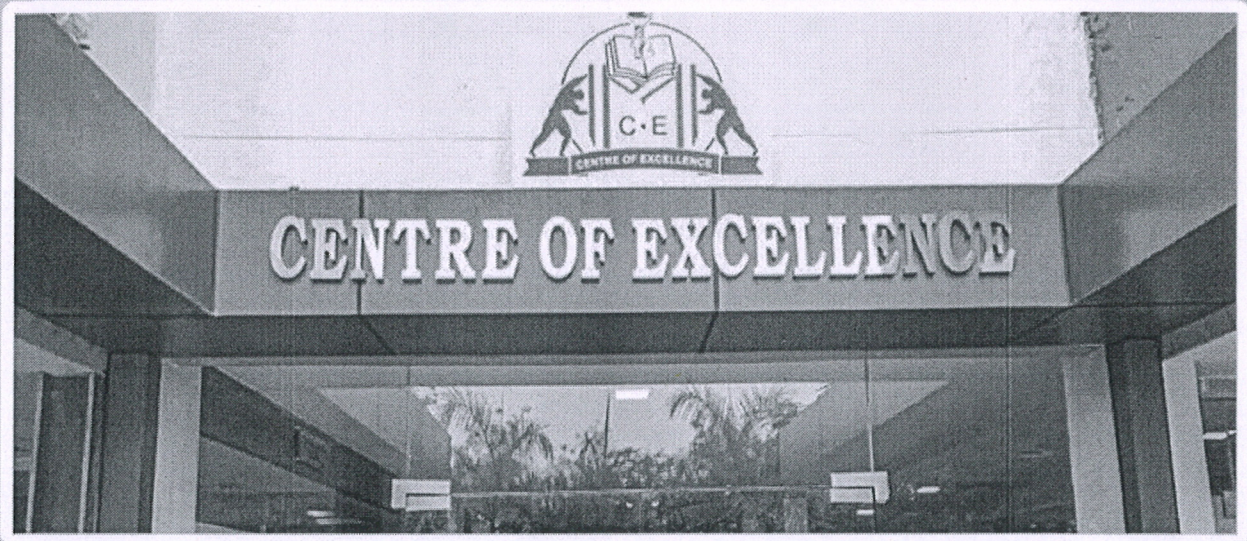
Principal
Malla Reddy Engineering College
Maisammaguda, Dhulapally,
(Post Via Kompally), Sec'bad-500100

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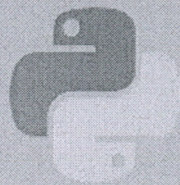
MALLA REDDY ENGINEERING COLLEGE
MAIN CAMPUS, AUTONOMOUS INSTITUTION
Maisammaguda, Dhulapally (Post) via Kompally,
Secunderabad-500100 Medchal - Malkajgiri District Telangana, India



COMPUTER SOFTWARE

HTML, PYTHON WITH DJANGO, JAVA,
SCRATCH PROGRAMMING

LAB VIEW, FOUNDATION OF BLOCK CHAIN,
MATLAB, BLOCK CHAIN REVOLUTION, MATLAB PRO,
ADVANCE JAVA, ADVANCE PYTHON.



python



Java

Course Duration -: 4 Months

**Before Software can be Reusable
it First has to be Usable.**

Raveesh
Principal
Malla Reddy Engineering College
Maisammaguda, Dhulapally,
(Post Via Kompally), Sec'bad-500100



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Telangana State – 500100

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Course Name: Fundamentals of Java

Module 1- Introduction

Types of Programming language and Paradigms. Java – what, where and why?, Platform independency, Comparison in Java with C and C++, Role of Java Programmer in Industry. Java Evolution and History, Features of Java Language.

The Java Virtual Machine (JVM) – The heart of Java., Java's Magic Byte code, JDK , JRE and JIT, Reserve / Keywords present in Java Lexical Tokens, Identifiers

Primitive Data types and Block in java

Data types -int , char , float , double , Boolean , short , long , byte, UNICODE system, Value type, Reference type.

Types and Scope of variables, Static variables, Instance, variable, Local variables, final

variable, transient variable, volatile variable. Static block and Non-static block. Static, non-static, final, abstract, native and synchronized Communicate java application with other language using java native interface.

Java Operators

Arithmetic operators, Relational operators, Logical operators, Shift operators, Assignment Operators,Unary operator, Bitwise operators, Special operators. Ternary operator

Decision making and branching programming with Java,

If statement, If...Else statement and if...else, ladder. Nested if Multiple if, Switch... case statement, Conditional operator vs. if statement, Break and continue in java

Decision making and looping - While, Do, For, For each

Class Fundamentals,

Object & Object reference, Life time of object & Garbage Collection, Creating with Operating reference and Objects, Constructor & initialization code block, Access Control, Modifiers, methods Nested, Inner Class & Anonymous Classes Abstract Class & Interfaces Defining Methods, Argument Passing Mechanism Method Overloading, Recursion.

Dealing with Static Members, Finalize () Method, Native Method, Use of "this" reference, Use of Modifiers with Classes & Methods, Design of Accessors and Mutator Methods Cloning Objects, shallow and deep cloning Generic Class Types

Extending Classes and Inheritance

Types of Inheritance in Java, ole of Constructors in inheritance. Polymorphism in OOP, Overriding Super Class Methods.

Use of "super" keyword, Restriction in case of method, overriding, Type Compatibility and Conversion

Implementing interfaces, Dynamic method dispatching by down-casting and up-casting.



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Package

Organizing Classes and Interfaces, in Packages, Package as Access Protection, Defining Package. Advantage of package, Sub-Package CLASSPATH Setting for Packages. Making JAR Files for Library Packages, Import and Static Import Creating .EXE and jar executable file.

Exception Handling

The Idea behind Exception, Exceptions & Errors, Types of Exception, Checked and Un-Checked Exceptions, Control Flow in Exceptions, Use of try and catch block, Multiple catch block Nested try, finally block, throw keyword, Exception Propagation, throws keyword, Exception Handling with Method Overriding, In-built and User Defined Exceptions, Exception handling rule in case of method overriding. How to handle unreachable statements using finally.

Arrays

Defining an Array, Single-Dimensional Array, Initializing & Accessing Array, Multi -Dimensional Array, Jagged Array Arrays class, Methods in Arrays class, Sorting the elements of Array, Searching, insert, delete, dynamically. Matrix multiplication, addition, transpose, upper triangular, lower triangular, sparse matrix.

String

what and why Operation on String, Immutable String, String comparison and concatenation, Method of String class, StringBuffer class and its methods. StringBuilder class in java. Creating Immutable class like String. Using Collection Bases Loop for String, Tokenizing a String, Object comparisons using Comparator and comparable interface.

Input/output Operation in Java (java.io Package) Streams and the new I/O Capabilities Understanding Streams File class and its methods. Creating file and folder using java code. The Classes for Input and Output FileOutputStream & FileInputStream FileWriter & FileReader Input from keyboard by InputStreamReader Input from keyboard by Console Input from keyboard by Scanner PrintStream class PrintWriter class



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Telangana State - 500100

Course:FOUNDATIONS OF
JAVA

Date:09/07/2018 to 10/11/2018

Registered Students

SL.No	Roll No	NAME	BRANCH
1.	17J41A0162	ANAGANTI PADMAJA	CE
2.	17J41A0169	BATTINI ALAIKYA	CE
3.	17J41A0175	CHALLA RAJU	CE
4.	17J41A0190	JAUDI DIVYA BHARATHI	CE
5.	17J41A1237	NUNE SAI KIRAN	IT
6.	17J41A1242	PODDUTURI SAMEER REDDY	IT
7.	17J41A1247	RAAVI LOKESH	IT
8.	17J41A1253	SHIVAM ZANWAR	IT
9.	17J41A1258	YALALA NIKHITHA	IT
10.	17J41A1239	PEROLLA RAJASHEKAR REDDY	IT
11.	17J41A0240	NADIPELLI RAHUL RAO	EEE
12.	17J41A0244	NOMA ZAREEN	EEE
13.	17J41A0248	POTHARAJU RAJU	EEE
14.	17J41A0252	SOPPARWAR VIJAY	EEE
15.	17J41A0256	THODETI SRAVAN KUMAR	EEE
16.	17J41A0366	BAYAMMOLA DATHA GOUD	ME
17.	17J41A0372	BIMARTHI SINDHUJA	ME
18.	17J41A0379	CHITYALA SRIKANTH	ME
19.	17J41A0387	KAMTIN PRUTHVI	ME
20.	17J41A0392	KOTTAPU INDRASENA REDDY	ME
21.	17J41A0464	BANOTH VIKAS	ECE
22.	17J41A0468	BONALA SAI MANIKANTA BHAAVAN	ECE
23.	17J41A0472	CHEEKATLA BHANU SHIVA SAI KIRAN	ECE
24.	17J41A0476	D BHARAT REDDY	ECE
25.	17J41A0480	GAJULA RAMPRASAD BABU	ECE
26.	17J41A0565	BHIMIREDDY KIRAN KUMAR REDDY	CSE
27.	17J41A0571	CH ANKITHA	CSE
28.	17J41A0576	DAMMU BEENA JESSICA	CSE
29.	17J41A0581	G ARUN KUMAR	CSE

Raveesh
Principal
Malla Reddy Engineering College
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SUMMARY

FOUNDATIONS OF JAVA

Java is a high-level programming language developed by Sun Microsystems. It was originally designed for developing programs for set-top boxes and handheld devices, but later became a popular choice for creating web applications. The Java syntax is similar to C++, but is strictly an object-oriented programming language.

can be used to develop software for mobile devices, browser-run applets, games, as well as desktop, enterprise (server-side), and scientific applications.

Java platform consists of Java virtual machine (JVM) responsible for hardware abstraction, and a set of libraries that gives Java a rich foundation.

Java tools include the Java compiler as well as various other helper applications that are used for day-to-day development (e.g. debugger).

Object Oriented

Everything in Java is coded using OO principles. This facilitates code modularization, reusability, testability, and performance.

Interpreted/Portable

Java source is compiled into platform-independent bytecode, which is then interpreted (compiled into native-code) at runtime. Java's slogan is "Write Once, Run Everywhere"

Simple

Java has a familiar syntax, automatic memory management, exception handling, single inheritance, standardized documentation, and a very rich set of libraries (no need to reinvent the wheel).

Secure/Robust

Due to its support for strong type checking, exception handling, and memory management, Java is immune to buffer- overruns, leaked memory, illegal data access. Additionally, Java comes with a Security Manager that provides a sand-box execution model.

Scalable

Thanks to its overall design, Java is scalable both in terms of performance/throughput, and as a development environment. A single user can play a Java game on a mobile phone, or millions of users can shop through a Java-based e-commerce enterprise application.

High-performance/Multi-threaded

With its HotSpot Just-in-Time compiler, Java can achieve (or exceed) performance of native applications. Java supports multi-threaded development out-of-the-box.

Dynamic

Java can load application components at run-time even if it knows nothing about them. Each class has a run-time representation.

Distributed

Java comes with support for networking, as well as for invoking methods on remote (distributed) objects through RMI.



MALLA REDDY ENGINEERING COLLEGE

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Certificate Of the Course Completion

This is to Certify that

KAMTIN PRUTHVI

*has Successfully Completed Foundations Of Java Course Offered by
Centre of Excellence, MREC(A) on 10/11/2018 bearing
with Roll No. 17J41A0387 and Branch ME.*

Dr. Yogesh Madaria
CONVENOR

Principal
Malla Reddy Engineering College
Maisammaguda, Dhulapally,
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Dr. S. Sudhakara Reddy
Conference Chair & Principal



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Certificate Of the Course Completion

This is to Certify that

NOMA ZAREEN

*has Successfully Completed Foundations Of Java Course Offered by
Centre of Excellence, MRECA(A) on 10/11/2018 bearing
with Roll No. 17J41A0244 and Branch EEE.*

Dr. Yogesh Madaria
CONVENOR

Principal
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Dr. S. Sudhakara Reddy
Conference Chair & Principal



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Certificate Of the Course Completion

This is to Certify that

PODDUTURI SAMEER REDDY

*has Successfully Completed Foundations Of Java Course Offered by
Centre of Excellence, MREC(A) on 10/11/2018 bearing
with Roll No. 17J41A1242 and Branch CE.*

Dr. Yogesh Madaria
CONVENOR

Principal
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Dr. S. Sudhakara Reddy
Conference Chair & Principal



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Certificate Of the Course Completion

This is to Certify that

ANAGANTI PADMAJA

*has Successfully Completed Foundations Of Java Course Offered by
Centre of Excellence, MREC(A) on 10/11/2018 bearing
with Roll No. 17J41A0162 and Branch CE.*

Dr. Yogesh Madaria
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Certificate Of the Course Completion

This is to Certify that

G ARUN KUMAR

*has Successfully Completed Foundations Of Java Course Offered by
Centre of Excellence, MREC(A) on 10/11/2018 bearing
with Roll No. 17J41A0581 and Branch CSE.*

Dr. Yogesh Madaria
CONVENOR

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