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Industrial Training Seminar

On

“Java”

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IT/3rd yr./A

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**JAIPUR ENGINEERING COLLEGE
AND RESEARCH CENTRE**



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Organization Details



Code Planet technologies Pvt Ltd is a Jaipur based private software training centre . It was founded with the goal of providing best-in -class training to young college graduates in order to enrich their knowledge and skill in accordance with industry standards ,making them future ready and employable. We're a self funded organisation and are fully accountable to the people we train.



Certificate



Certificate of Achievement

Date : 17/08/2022

Regd. No.

CP5013

This is to Certify that Mr/Mrs/Ms. ANSH SINGH

S/o. D/o. W/o. CHANDAN SINGH

has successfully

Completed the TRAINING/INTERNSHIP in JAVA | J2EE from our Organisation

during the period 28/06/2022 to 16/08/2022



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Introduction

Java is a high-level, class-based, object oriented programming language that is designed to have as few implementation dependencies as possible. It is a general-purpose programming language intended to let programmers **write once, run anywhere** (WORA), meaning that compiled Java code can run on all platforms that support Java without the need for recompilation. Java applications are typically compiled to bytecode that can run on any Java virtual machine (JVM) regardless of the underlying computer architecture.



The syntax of Java is similar to C and C++, but has fewer low-level facilities than either of them. The Java runtime provides dynamic capabilities (such as reflection and runtime code modification) that are typically not available in traditional compiled languages. As of 2019, Java was one of the most popular programming languages in use according to GitHub, particularly for client–server web applications, with a reported 9 million developers.



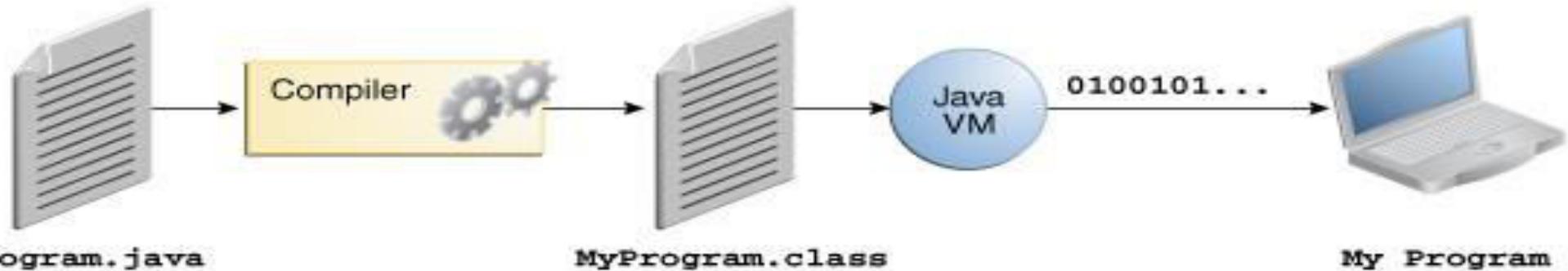
Java was originally developed by James Gosling at Sun Microsystems (which has since been acquired by Oracle) and released in 1995 as a core component of Sun Microsystems' Java platform. The original and reference implementation Java compilers, virtual machines, and class libraries were originally released by Sun under proprietary licenses. As of May 2007, in compliance with the specifications of the Java Community Process, Sun had relicensed most of its Java technologies under the GPL-2.0-only license.

Technology Used: JAVA

In the Java programming language, all source code is first written in plain text files ending with the .java extension. Those source files are then compiled into .class files by the java compiler. A .class file does not contain code that is native to your processor; it instead contains bytecodes — the machine language of the Java Virtual Machine1 (Java VM). The java launcher tool then runs your application with an instance of the Java Virtual Machine.

Overview Of Tools Used

1.JDK (Java Development Kit):



When it comes to developing Java-based applets and applications, a necessary tool is JDK. The JDK includes the Java Runtime Environment, the Java compiler, and the Java APIs. This tool is easy to use both for new and experienced programmers.

Key Features:

- Java Runtime Environment
- Java compiler and Java APIs
- Good for beginners and professionals, alike.
- Cost is free.



Project Description

Java Project to Make a Simple Employee management application

We created an employee management application using java, SQL , Java Database Connectivity (JDBC).

We have connected the user interface with database and the application enables user to Add, View, Update, Delete any employee's details on the basis of their employee Id.



Screenshots Of Project

```
File Edit View Navigate Code Refactor Build Run Tools VCS Window Help Main.java [...\Desktop\IT Presentation\Employee-Management-Application\Employee-Management-Application] - Main.java - Main Employee-Management-Application Project Notifications

Employee-Management-Application [Employee-Management-Application]
  > .idea
  > out
  > Employee
  > Employee-Management-Application-main.iml
  > EmployeeService
  > Main
  > External Libraries
  > Scratches and Consoles

Main.java
package com.sj.empmanagmentapplication;

import java.util.Scanner;
public class Main {

    EmployeeService service=new EmployeeService();
    static boolean ordering = true;
    public static void menu() {
        System.out.println("*****Welcome To Employee Management System *****"
                + "\n1. Add Employee"
                + "\n2. View Employee"
                + "\n3. Update Employee"
                + "\n4. Delete Employee"
                + "\n5. View All Employee"
                + "\n6. Exit ");
    }

    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        EmployeeService service=new EmployeeService();

        do {
            menu();
            System.out.println("Enter your Choice");
            int choice=sc.nextInt();
        }
    }
}

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```



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File Edit View Navigate Code Refactor Build Run Tools VCS Window Help Main.java [..]\Desktop\T Presentation\Employee-Management-Application\Employee-Management-Application] - Main.java

Employee-Management-Application Main main

Project Main.java EmployeeService.java Employee.java Notifications

```
23
24     System.out.println("Enter your Choice");
25     int choice=sc.nextInt();
26     switch(choice) {
27
28         case 1:
29             System.out.println("Add Employee");
30             service.addEmp();
31             break;
32         case 2:
33             System.out.println("View Employee");
34             service.viewEmp();
35             break;
36         case 3:
37             System.out.println("Update Employee");
38             service.updateEmployee();
39             break;
40         case 4:
41             System.out.println("Delete Employee");
42             service.deleteEmp();
43             break;
44         case 5:
45             System.out.println("view All Employee");
46             service.viewAllEmps();
47             break;
48         case 6:
49             System.out.println("Thank you for using application!!!");
50             System.exit( status: 0);
```

Version Control Run TODO Problems Terminal Services Build

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Employee-Management-Application > JavaJDBC

Main.java EmployeeService.java Employee.java

```
1 package com.sj.empmanagementapplication;
2
3
4 import java.sql.Connection;
5 import java.sql.DriverManager;
6 import java.sql.ResultSet;
7 import java.sql.Statement;
8
9 public class JavaJDBC {
10 public static void main(String[] args) {
11     try {
12         Class.forName(className: "com.mysql.cj.jdbc.Driver");
13         Connection connection = DriverManager.getConnection(
14             url: "jdbc:mysql://localhost:3306/jdbcdemo", user: "root", password: "");
15         Statement statement = connection.createStatement();
16         ResultSet resultSet = statement.executeQuery(sql: "select * from student");
17         while (resultSet.next()) {
18             System.out.println(resultSet.getInt(columnIndex: 1) + " " + resultSet.getString(columnIndex: 2) + " " + resultSet.getString(columnIndex: 3));
19             ;
20         }
21     }
22     connection.close();
23 } catch (Exception e) {
24     System.out.println(e);
25 }
26 boolean found=false;
27 int id;
28 String name;
29 int age;
30 String department;
```

Project Bookmarks Structure

Version Control Run TODO Problems Terminal Services Build

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File Edit View Navigate Code Refactor Build Run Tools VCS Window Help Main.java [...\IT Presentation\Employee-Management-Application\Employee-Management-Application] - Employee.java

Employee-Management-Application > Employee > toString

Main.java EmployeeService.java Employee.java

Run: Main

```
"C:\Program Files\Java\jdk-18.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.1.2\lib\idea_rt.jar=56379:C:\Program Files\Java\jdk-18.0.2\bin" -Dfile.encoding=UTF-8 com.intellij.rt.execution.junit.JUnitStarter -ideVersion5 "C:\Users\DELL\IdeaProjects\Employee-Management-Application\out\runner\EmployeeTest" -Djava.awt.headless=true
```

*****Welcome To Employee Management System *****

1. Add Employee
2. View Employee
3. Update Employee
4. Delete Employee
5. View All Employee
6. Exit

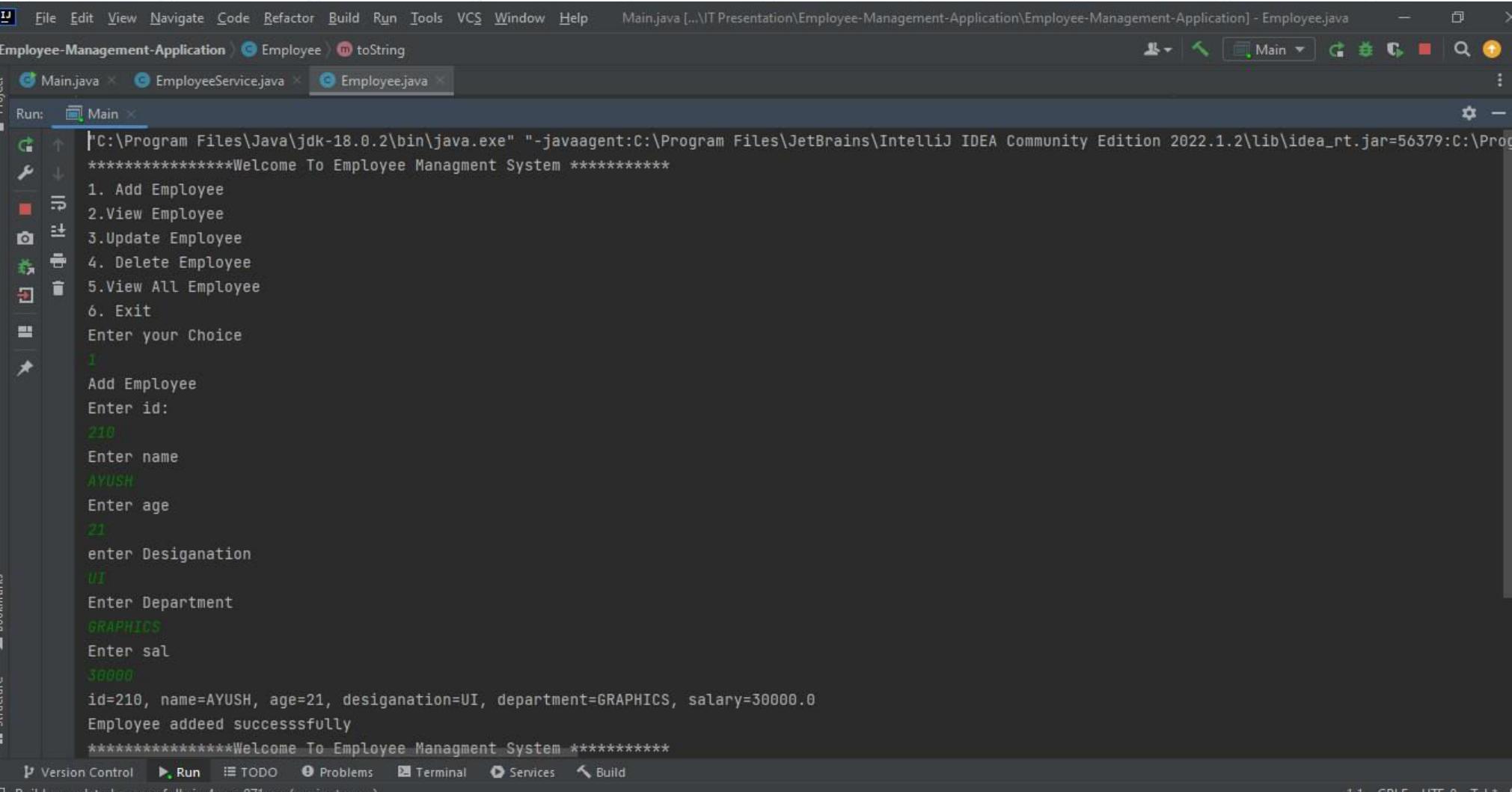
Enter your Choice

Version Control Run TODO Problems Terminal Services Build

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Employee-Management-Application > Employee > toString

Main.java EmployeeService.java Employee.java

Run: Main

```
"C:\Program Files\Java\jdk-18.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.1.2\lib\idea_rt.jar=56379:C:\Program Files\Java\jdk-18.0.2\bin" -Dfile.encoding=UTF-8 Main
*****Welcome To Employee Management System *****
1. Add Employee
2. View Employee
3. Update Employee
4. Delete Employee
5. View All Employee
6. Exit
Enter your Choice
1
Add Employee
Enter id:
210
Enter name
AYUSH
Enter age
21
enter Designation
UI
Enter Department
GRAPHICS
Enter sal
30000
id=210, name=AYUSH, age=21, designation=UI, department=GRAPHICS, salary=30000.0
Employee added successfully
*****Welcome To Employee Management System *****
```

Version Control Run TODO Problems Terminal Services Build

Build completed successfully in 4 sec, 971 ms (a minute ago)



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File Edit View Navigate Code Refactor Build Run Tools VCS Window Help Main.java [...]\IT Presentation\Employee-Management-Application\Employee-Management-Application] - Employee.java

Employee-Management-Application Employee m to String

Main.java EmployeeService.java Employee.java

Run: Main

Project Notifications

```
30000
id=210, name=AYUSH, age=21, designation=UI, department=GRAPHICS, salary=30000.0
Employee addeed successfully
*****Welcome To Employee Managment System *****
1. Add Employee
2.View Employee
3.Update Employee
4. Delete Employee
5.View All Employee
6. Exit
Enter your Choice
2
View Employee
Enter id:
210
id=210, name=AYUSH, age=21, designation=UI, department=GRAPHICS, salary=30000.0
*****Welcome To Employee Management System *****
1. Add Employee
2.View Employee
3.Update Employee
4. Delete Employee
5.View All Employee
6. Exit
Enter your Choice
```

Version Control Run TODO Problems Terminal Services Build

Build completed successfully in 4 sec, 971 ms (2 minutes ago) 47:1 CRLF UTF-8 Tab*



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File Edit View Navigate Code Refactor Build Run Tools VCS Window Help Main.java [...\\Employee-Management-Application\\Employee-Management-Application] - EmployeeService.java

Employee-Management-Application > EmployeeService

Main.java EmployeeService.java Employee.java

Run: Main

Project Notifications

```
Run: Main
1. Add Employee
2. View Employee
3. Update Employee
4. Delete Employee
5. View All Employee
6. Exit
Enter your Choice
5
view All Employee
id=101, name=Shital, age=24, designation=Developer, department=IT, salary=25000.0
id=103, name=Bob, age=20, designation=DevOps Eng, department=Admin, salary=5000.0
id=104, name=Max, age=27, designation=System Eng, department=CO, salary=70000.0
id=102, name=ASHISH, age=26, designation=Tester, department=CO, salary=57000.0
*****Welcome To Employee Management System *****
1. Add Employee
2. View Employee
3. Update Employee
4. Delete Employee
5. View All Employee
6. Exit
Enter your Choice
6
Thank you for using application!!

Process finished with exit code 0
```

Version Control Run TODO Problems Terminal Services Build

Build completed successfully in 4 sec, 971 ms (6 minutes ago) 97:1 CRLF UTF-8 Tab?



Conclusion

Java is an object-oriented programming language. It is a general-purpose programming language, mainly designed to run developed java code on all platforms that support Java without recompilation.

As we all know, Java is one of the most popular and in-demand programming languages to learn and it was one of the first languages to standardise highlevel threading utilities.

Java project is a must for aspiring developers. This project helps developers develop real-world projects



to hone their skills and materialise their theoretical knowledge into practical experience.

Java has significant advantages both as a commercial language and also as a teaching language. Java project provides rigorous compile-time error checking typically associated with Pascal, allowing instructors to introduce students to GUI programming, networking, threads, and other important concepts used in modern-day software. Overall, the java project gives a complete design for the extended language.



Future scope of JAVA

When we talk about various programming languages and technologies, Java is the most popular platform, which is used to develop various applications for systems, as well as integrated devices such as laptops, tablets, mobile phones and much more. The future reach of Java programmers is excellent. It is an object-oriented programming language and has a simple object model, since it has been derived from C and C++. It provides a virtual machine, which is accumulated with byte-code .

References



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- Wikipedia.org
- Programiz.com
- Stackify.com
- Byjus.com

THANK YOU