**C V RAMAN GLOBAL UNIVERSITY, BHUBANESHWAR**

**ODISHA**

**Department Of Computer Science Engineering**

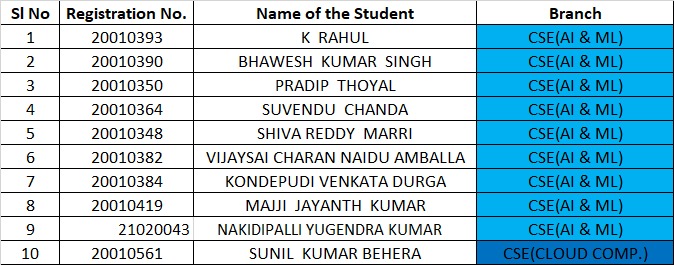
**Course Name:- OBJECT ORIENTED PROGRAMMING(JAVA)**

**Course Code:-**

**Project on**

**EMPLOYEE MANAGEMENT SYSTEM**

**Submitted By:**



**CERTIFICATE**

This is to certify that the course based project entitled "EMPLOYEE MANAGEMENT SYSTEM" is a bonafide work done by OUR GROUP in partial fulfilment of the requirement for the award of degree in "BACHELOR OF TECHNOLOGY in Computer Science Engineering" during the academic year 2021-2022.

Faculty In Charge

DR. BICHITRANANDA BEHERA

**DECLARATION**

We hereby declare that this project based report entitled "EMPLOYEE MANAGEMENT SYSTEM" has been prepared by us in partial fulfillment of the requirement for the award of degree "BACHELOR OF TECHNOLOGY in COMPUTER SCIENCE ENGINEERING" during the academic year 2021 2022.

We also declare that this project based report is of our own effort and it has not been submitted to any other university for the award of any degree.

**ACKNOWLEDGMENT**

I express my sincere thanks to our project supervisor Dr. BITCHITRANANDA BEHERA Sir for his novel association of ideas, encouragement, appreciation and intellectual zeal which motivated us to venture this project successfully.

Finally, it is pleased to acknowledge the indebtedness to all those who devoted themselves directly or indirectly to make this project report success.

**Table Of Contents**

Abstract………………………………………………….…..

Introduction………………………………………………... Project Description…………………………….…………..

**ABSTRACT :**

In this world of growing technologies everything has been computerized. With large number of work opportunities the Human workforce has increased. Thus there is a need of a system which can handle the data of such a large number of Employees in an organization. This project simplifies the task of maintain records because of its user friendly nature.

The "EMPLOYEE MANAGEMENT SYSTEM has been developed to override the problems prevailing in the practicing manual system. This software is supported to eliminate and in some cases reduce the hardships faced by this existing system. Moreover this system is designed for the particular need of the company to carry out operations in a smooth and effective manner.

The application is reduced as much as possible to avoid errors while entering the data. It also provides error message while entering invalid data. No formal knowledge is needed for the user to use this system. Thus by this it proves that it is user friendly.

**INTRODUCTION:**

Employee Management system is an application that enables users to create and store Employee Records. The application also provides facilities of a displaying the details ,deleting, updating the details of an employee system .

This application is helpful to department of the organization which maintains data of employees related to an organization .

Java is a platform independent language. Its created applications can be used on a standalone machine as well as on distributed network. More over applications developed in java can be extended to Internet based applications. Thus java was chosen as background to design this application.

Manual handling of employee information poses a number of challenges. This is evident in procedures such as leave management where an employee is required to fill in a form which may take several weeks or months to be approved. The use of paper work in handling some of these processes could lead to human error, papers may end up in the wrong hands and not forgetting the fact that this is time consuming. A number of current systems lack employee self-service meaning employees are not able to

access and manage their personal information directly without having to go through their HR departments or their managers.

**OBJECTIVE OF THIS PROJECT :**

This project aims to simplify the task of maintaining records of the employees of Company.

To develop an well-designed database to store employee information

Provides full functional reports to management of Company.

The objective of this project is to provide a comprehensive approach towards the management of employee information.

**PROJECT DESCRIPTION :**

In this project we have designed “EMPLOYEE MANAGEMENT SYSTEM” application using java programming language . We have used many classes and various packages to complete our task .In this application , interface provides 6 options from we have to choose one . Those options are :

1. Add Employee to the Database.
2. Search for Employees.
3. Edit Employee Details.
4. Delete Employee Details.
5. Display all Employees working in the company.
6. Exit.

If we select option 1 then we can add data of an Employee into the data base.

**ADVANTAGES :**

Provide computerized system for maintaining records.

More efficient & reliable.

Less time consuming and easy to use.

Huge data storage with less computer memory. Avoid Human errors & efforts for Maintaining daily data.

Avoid Data manipulations.

Also avoids Data inconsistency & redundancy.

**SOURCE CODE :**

import java.io.File;

import java.io.FileInputStream;

import java.io.FileOutputStream;

import java.io.IOException;

import java.io.ObjectInputStream;

import java.io.ObjectOutputStream;

import java.io.Serializable;

import java.util.ArrayList;

import java.util.Scanner;

@SuppressWarnings("serial")

class Employee implements Serializable{

    int id;

    String name;

    float salary;

    long contact\_no;

    String email\_id;

    public Employee(int id, String name, float salary, long contact\_no, String email\_id)

    {

        this.id = id;

        this.name = name;

        this.salary = salary;

        this.contact\_no = contact\_no;

        this.email\_id = email\_id;

    }

    public String toString()

    {

        return "\nEmployee Details :" + "\nID: " + this.id + "\nName: " + this.name + "\nSalary: " +

                this.salary + "\nContact No: " + this.contact\_no + "\nEmail-id: " + this.email\_id;

    }

}

public class EmployeeManagement

{

    static void display(ArrayList<Employee> al)

    {

        System.out.println("\n--------------Employee List---------------\n");

        System.out.println(String.format("%-10s%-15s%-10s%-20s%-10s", "ID","Name","salary","contact-no","Email-Id"));

        for(Employee e : al)

        {

            System.out.println(String.format("%-5s%-20s%-10s%-15s%-10s",e.id,e.name,e.salary,e.contact\_no,e.email\_id));

        }

    }

    @SuppressWarnings("unchecked")

    public static void main(String[] args)

    {

        int id;

        String name;

        float salary;

        long contact\_no;

        String email\_id;

        Scanner sc = new Scanner(System.in);

        ArrayList<Employee> al = new ArrayList<Employee>();

        File f = null;

        FileInputStream fis = null;

        ObjectInputStream ois = null;

        FileOutputStream fos = null;

        ObjectOutputStream oos =null;

        try{

            f = new File("N:/Java Work Space/Eclipse Programs/Employee Management Tool/src/EmployeeDataList1.txt");

            if(f.exists())

            {

                fis = new FileInputStream(f);

                ois = new ObjectInputStream(fis);

                al = (ArrayList<Employee>)ois.readObject();

            }

        }

        catch(Exception exp){

            System.out.println(exp);

        }

        do

        {

            System.out.println("\n\*\*\*\*\*\*\*\*\*Welcome to the Employee Management System\*\*\*\*\*\*\*\*\*\*\n");

            System.out.println("1). Add Employee to the DataBase\n" +

                                "2). Search for Employee\n" +

                                "3). Edit Employee details\n" +

                                "4). Delete Employee Details\n" +

                                "5). Display all Employees working in this company\n" +

                                "6). EXIT\n");

            System.out.println("Enter your choice : ");

            int ch = sc.nextInt();

            switch(ch)

            {

            case 1:System.out.println("\nEnter the following details to ADD list:\n");

                System.out.println("Enter ID :");

                id = sc.nextInt();

                System.out.println("Enter Name :");

                name = sc.next();

                System.out.println("Enter Salary :");

                salary = sc.nextFloat();

                System.out.println("Enter Contact No :");

                contact\_no = sc.nextLong();

                System.out.println("Enter Email-ID :");

                email\_id = sc.next();

                al.add(new Employee(id, name, salary, contact\_no, email\_id));

                display(al);

                break;

            case 2: System.out.println("Enter the Employee ID to search :");

                    id = sc.nextInt();

                    int i=0;

                    for(Employee e: al)

                    {

                        if(id == e.id)

                        {

                            System.out.println(e+"\n");

                            i++;

                        }

                    }

                    if(i == 0)

                    {

                        System.out.println("\nEmployee Details are not available, Please enter a valid ID!!");

                    }

                    break;

            case 3: System.out.println("\nEnter the Employee ID to EDIT the details");

                    id = sc.nextInt();

                    int j=0;

                    for(Employee e: al)

                    {

                        if(id == e.id)

                        {

                            j++;

                        do{

                            int ch1 =0;

                            System.out.println("\nEDIT Employee Details :\n" +

                                                "1). Employee ID\n" +

                                                "2). Name\n" +

                                                "3). Salary\n" +

                                                "4). Contact No.\n" +

                                                "5). Email-ID\n" +

                                                "6). GO BACK\n");

                            System.out.println("Enter your choice : ");

                            ch1 = sc.nextInt();

                            switch(ch1)

                            {

                            case 1: System.out.println("\nEnter new Employee ID:");

                                    e.id =sc.nextInt();

                                    System.out.println(e+"\n");

                                    break;

                            case 2: System.out.println("Enter new Employee Name:");

                                    e.name =sc.nextLine();

                                    System.out.println(e+"\n");

                                    break;

                            case 3: System.out.println("Enter new Employee Salary:");

                                    e.salary =sc.nextFloat();

                                    System.out.println(e+"\n");

                                    break;

                            case 4: System.out.println("Enter new Employee Contact No. :");

                                    e.contact\_no =sc.nextLong();

                                    System.out.println(e+"\n");

                                    break;

                            case 5: System.out.println("Enter new Employee Email-ID :");

                                    e.email\_id =sc.next();

                                    System.out.println(e+"\n");

                                    break;

                            case 6: j++;

                                    break;

                            default : System.out.println("\nEnter a correct choice from the List :");

                                        break;

                            }

                            }

                        while(j==1);

                        }

                    }

                    if(j == 0)

                    {

                        System.out.println("\nEmployee Details are not available, Please enter a valid ID!!");

                    }

                    break;

            case 4: System.out.println("\nEnter Employee ID to DELETE from the Databse :");

                    id = sc.nextInt();

                    int k=0;

                    try{

                    for(Employee e: al)

                    {

                        if(id == e.id)

                        {

                                al.remove(e);

                                display(al);

                                k++;

                        }

                    }

                    if(k == 0)

                    {

                        System.out.println("\nEmployee Details are not available, Please enter a valid ID!!");

                    }

                    }

                    catch(Exception ex){

                        System.out.println(ex);

                    }

                    break;

            case 5: try {

                    al = (ArrayList<Employee>)ois.readObject();

                } catch (ClassNotFoundException e2) {

                    System.out.println(e2);

                } catch (Exception e2) {

                    System.out.println(e2);

                }

                    display(al);

                    break;

            case 6: try {

                    fos = new FileOutputStream(f);

                    oos = new ObjectOutputStream(fos);

                    oos.writeObject(al);

                } catch (IOException e1) {

                    e1.printStackTrace();

                }

                catch(Exception e2){

                    e2.printStackTrace();

                }

                finally{

                    try {

                        fis.close();

                        ois.close();

                        fos.close();

                        oos.close();

                    } catch (Exception e1) {

                        e1.printStackTrace();

                    }

                }

                    System.out.println("\nYou have chosen EXIT !! Saving Files and closing the tool.");

                    sc.close();

                    System.exit(0);

                    break;

            default : System.out.println("\nEnter a correct choice from the List :");

                        break;

            }

        }

        while(true);

    }

}