FINAL PROJECT REPORT

ABOUT

STAFF RESTAURANT

AL AZHAR RIZQI RIFA'I FIRDAUS

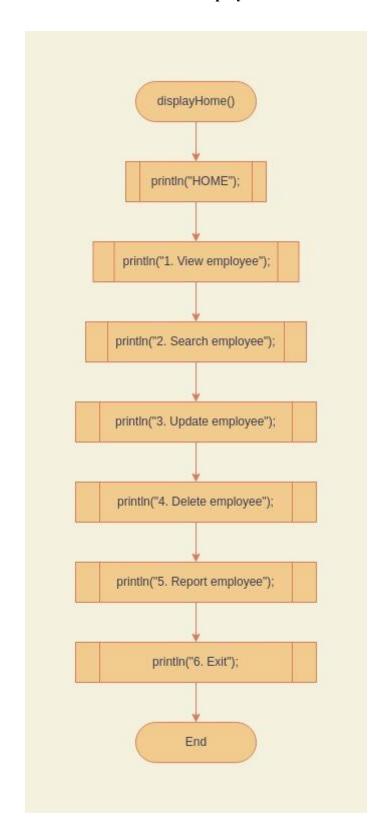
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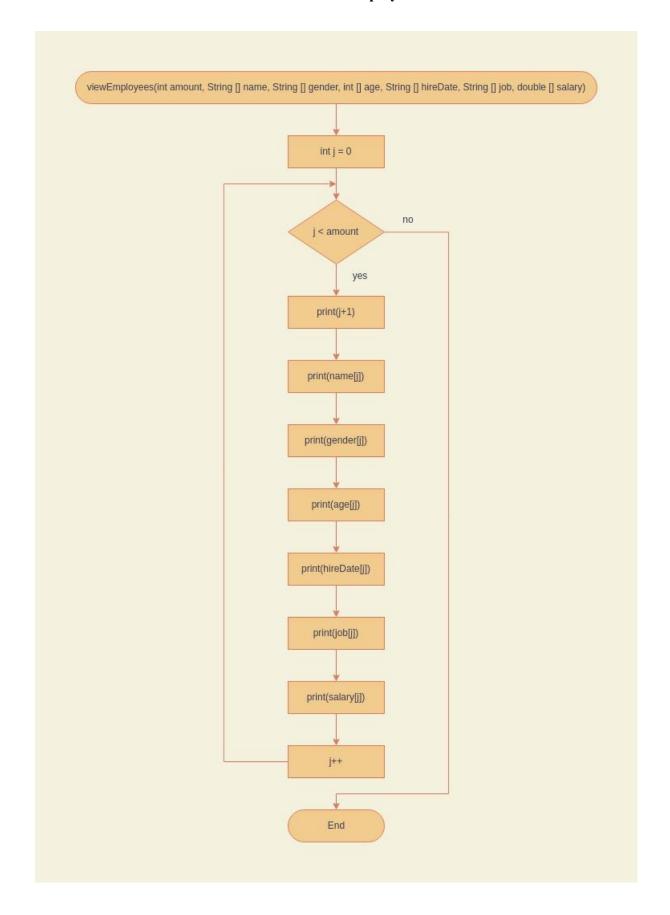
POLITEKNIK NEGERI MALANG DECEMBER 2022

1.1 Flowchart

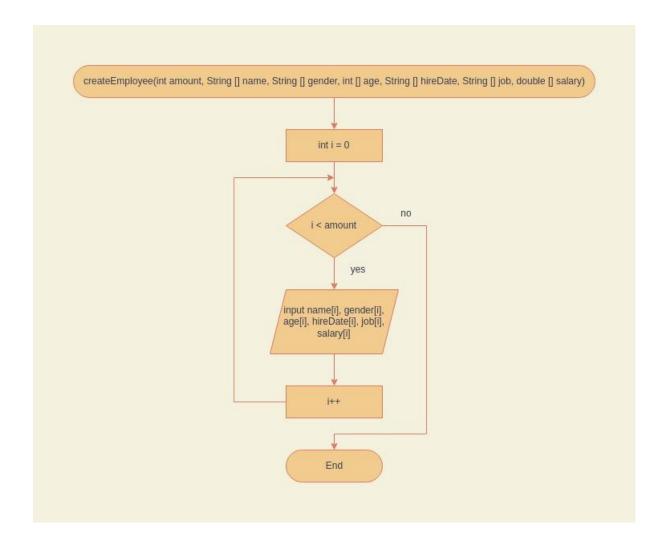
- Function displayHome



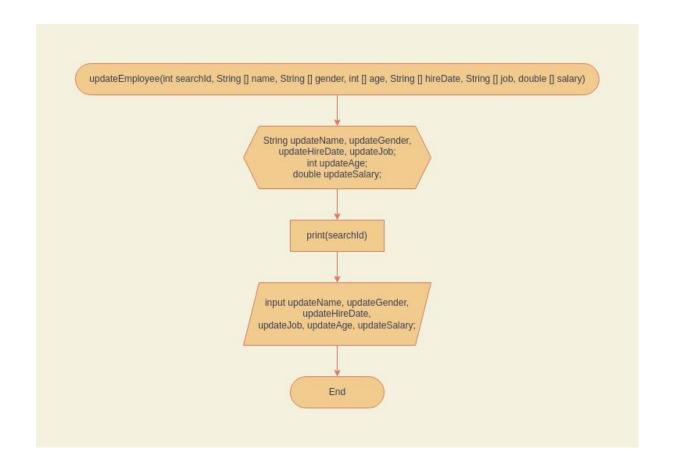
- Function viewEmployees



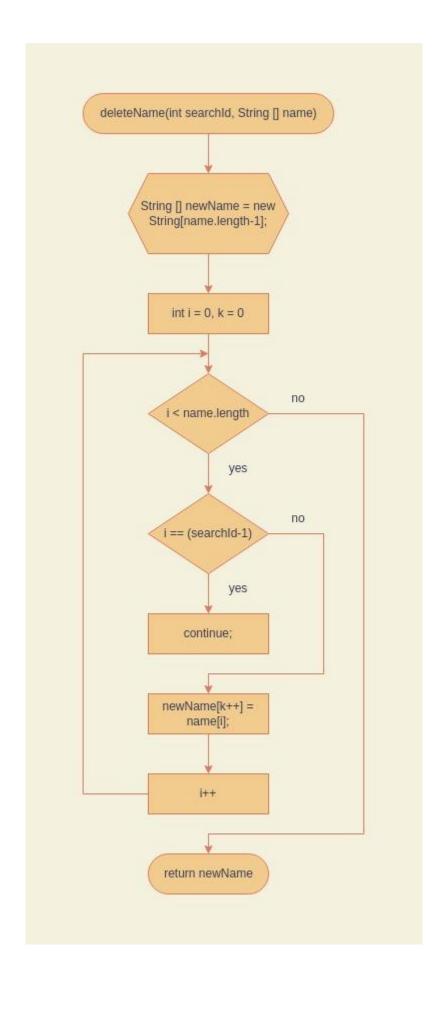
- Function createEmployee



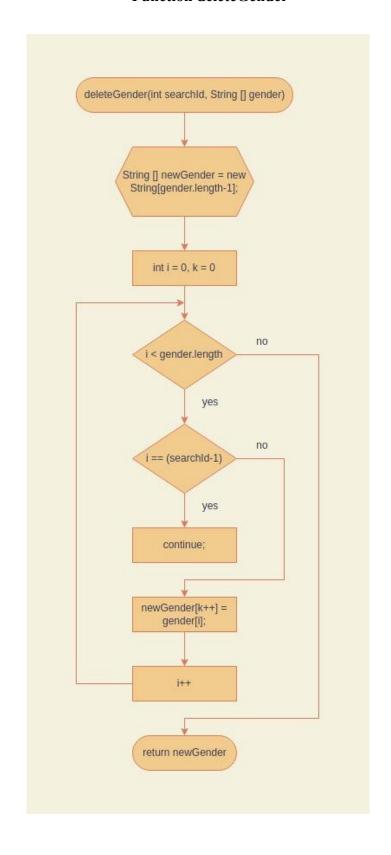
- Function updateEmployee



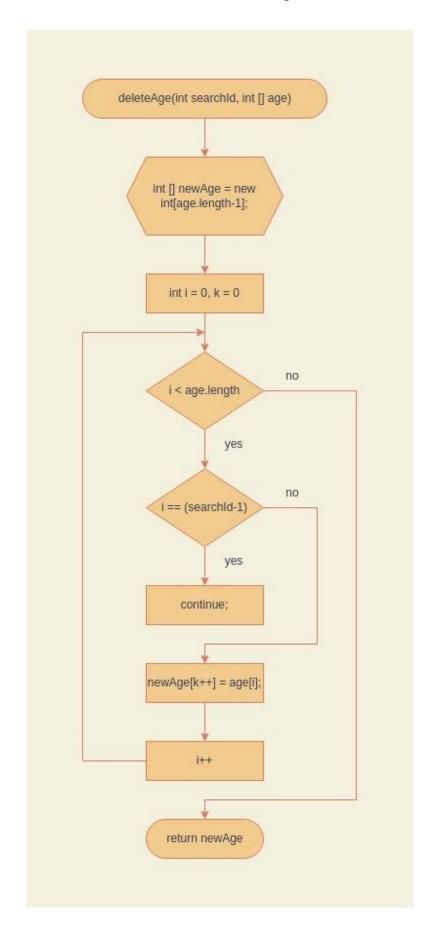
- Function deleteName



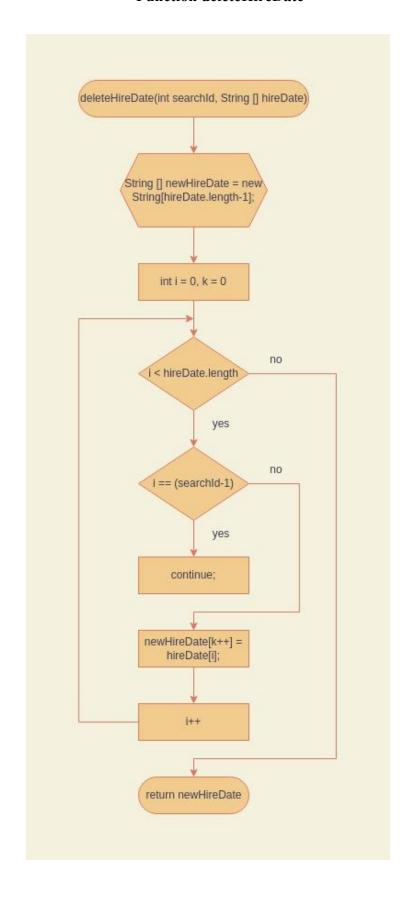
- Function deleteGender



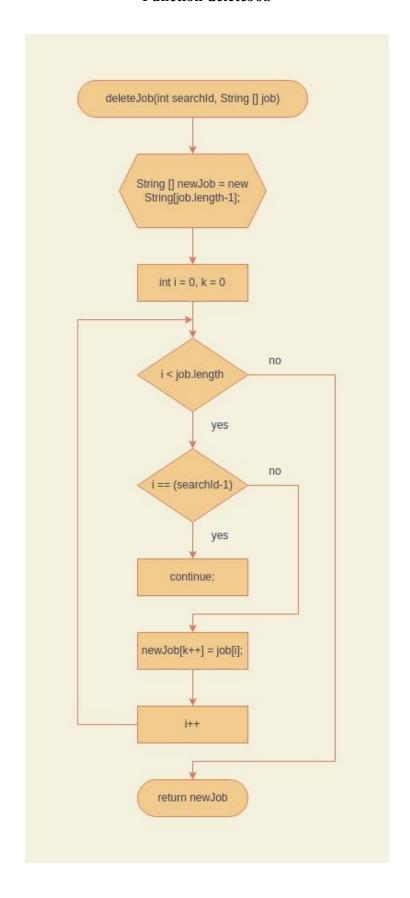
- Function deleteAge



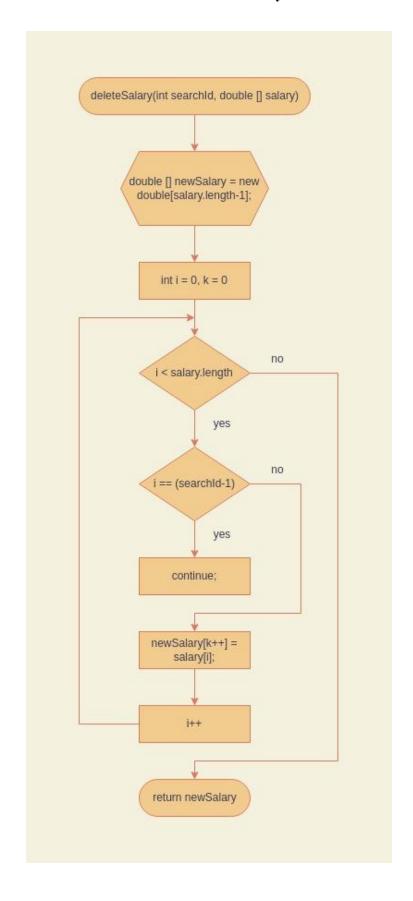
- Function deleteHireDate



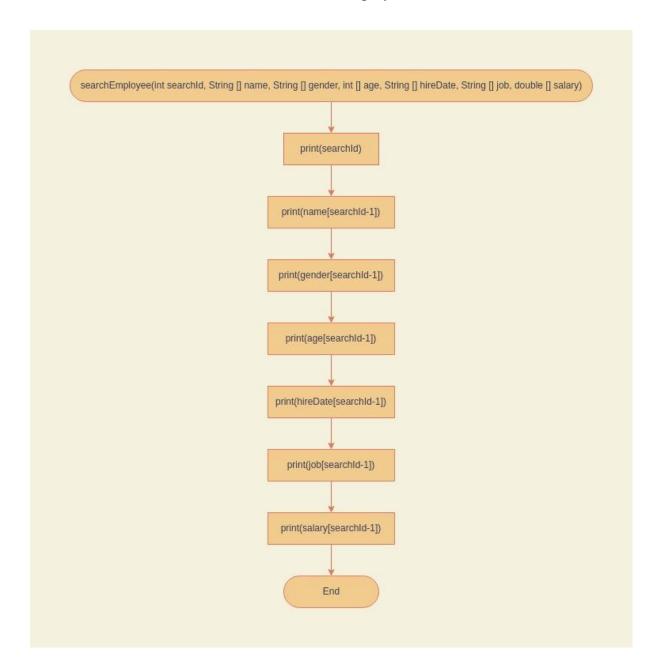
Function deleteJob



Function deleteSalary

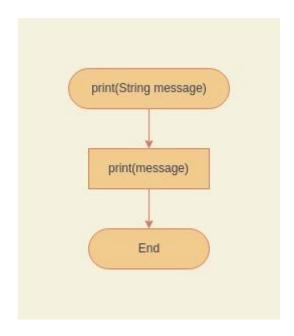


Function searchEmployee

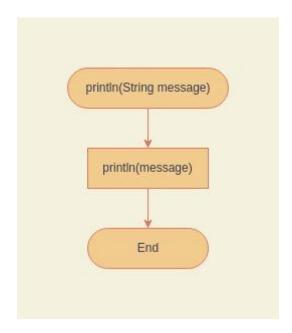


Function reportEmployee

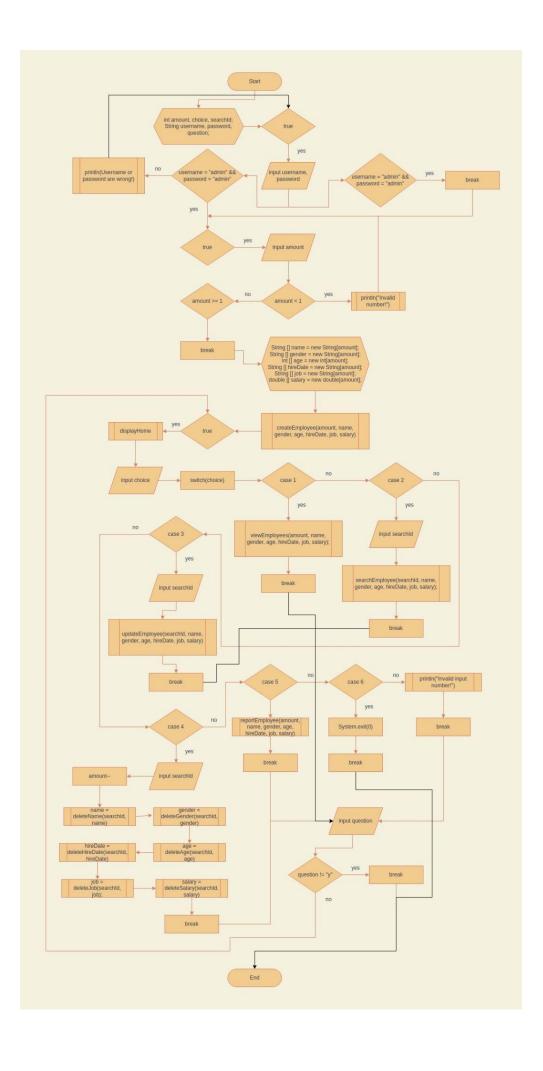
Function print



Function println



Function main



1.2 Steps to Run the Program

- First, log in by inputting a username with admin and a password with admin too.

- If the user inputs the wrong username and password, there will be a username or password error message and the user must input again.

- After login, the user must input the amount of employees that the user wants.

LOGIN STAFF RESTAURANT
Username : admin Password : admin
Insert amount of employee : [

If a user inputs a number less than one, then an error message will appear and the user must input again.

- After the user input the amount of employees, the user must input the data of employees.

```
Insert amount of employee : 2
Insert name of employee : azhar

Insert gender of employee : male

Insert age of employee : 19
Insert hire date of employee : 12-12-2022

Insert job of employee : manager

Insert salary of employee : 1500000

Insert name of employee : rizqi

Insert gender of employee : male

Insert age of employee : 20

Insert hire date of employee : 12-08-2020

Insert job of employee : cashier

Insert salary of employee : 1000000

CREATE EMPLOYEE SUCCESS
```

- The home menu appears. There are 6 menus: view employee, search employee, update employee and delete employee dan exit.

- If the user input numbers other than 1 - 6, then an error message will appear. And there is question input again or no.

- If the user input 1, then the program will display data of all employees that the user created before.

```
HOME

    View employee
    Search employee
    Update employee

4. Delete employee
5. Report employee
6. Exit
Choice number 1 - 6 : 1
DATA EMPLOYEE
                                                                                                                                      Salary
                       Name Employee
                                                                                          Hire Date
                                                                                                                  Job
       Ιd
                                                    Gender
                                                                         age
                       azhar
                                                                                          12-12-2022
                                                                                                                                 1,500,000.00
                       rizqi
                                                                                          12-08-2020
                                                                                                                                 1,000,000.00
Input again (y/n) ?
```

- After that, if the user input number 2, then the user must input the id of the employee as identification.

- At the update menu, the user can update the data of employees by inputting employee ID as identification.

```
1. View employee
2. Search employee
3. Update employee
4. Delete employee
5. Report employee
Choice number 1 - 6 : 3
UPDATE EMPLOYEE
Insert id of employee : 1
Id = 1
Update name of employee : sigil
Update gender of employee : male
Update age of employee : 25
Update hire date of employee : 08-08-2018
Update job of employee : cashier
Update salary of employee : 2500000 UPDATE EMPLOYEE SUCCESS
Input again (y/n) ?
```

- After edit.

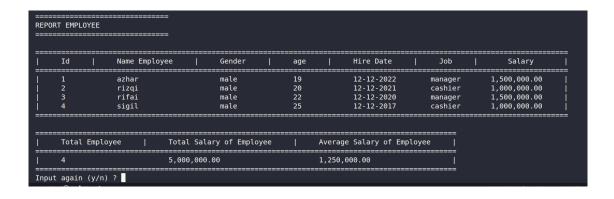
DATA	 DATA EMPLOYEE 													
1	Id		Name Employee		Gender		age		Hire Date		Job		Salary	
	1 2		sigil rizqi		male male		25 20		08-08-2018 12-08-2020		cashier cashier		2,500,000.00 1,000,000.00	
Input again (y/n) ?														

- At menu delete, the user can delete the data of an employee by inputting the id employee as identification.

- Data employee after deletion.

======================================														
	Id		Name Employee		Gender		age		Hire Date	- 1	Job		Salary	- 1
Ī	1		rizqi		male		20		12-08-2020		cashier		1,000,000.00	ı
Input again (y/n) ?														

- At the report menu, the user can see data on employees, the total amount of employees, the total salary of employees, and the average salary of employees.
 - After inputting data of the employee again.



- And the last menu is an exit. If the user input 6, then the program will stop.

The following are the steps for running the application

- 1. This application has several features such as creating employee data, viewing employee data, searching employee data, changing employee data, deleting employee data, and viewing employee data reports.
 - 2. Before accessing the application, users are required to log in first. After logging in, the user inputs the number of employees they want to add and then fills in the employee data.
- 3. After filling in the employee data, the user can access several menus such as viewing all employee data that has been created by inputting the number 1, then searching for employee data by inputting the number 2, updating employee data by inputting number 3, delete employee data by inputting number 4, view employee reports by inputting number 5, and exit the program by inputting number 6.
 - 1.3 Program Code
 - Function displayHome

```
1 static void displayHome() {
2    println("=========");
3    println("HOME");
4    println("1. View employee");
5    println("2. Search employee");
6    println("3. Update employee");
7    println("4. Delete employee");
8    println("5. Report employee");
9    println("6. Exit");
10    println("========");
11 }
```

Function viewEmployee

Function createEmployee

```
static void createEmployee(int amount, String [] name, String [] gender, int [] age, String [] hireDate, String [] job, double [] salary) {

for (int i = 0; i < amount; i++) {
    print("\nInsert name of employee : ");
    name[i] = scanner.next();
    print("\nInsert gender of employee : ");
    gender[i] = scanner.next();
    print("\nInsert age of employee : ");
    age[i] = scanner.nextInt();
    print("\nInsert hire date of employee : ");
    hireDate[i] = scanner.next();
    print("\nInsert job of employee : ");
    job[i] = scanner.next();
    print("\nInsert salary of employee : ");
    salary[i] = scanner.nextDouble();
}

println("CREATE EMPLOYEE SUCCESS\n");
}</pre>
```

function updateEmployee

```
static void updateEmployee(int searchId, String [] name, String [] gender, int [] age, String [] hireDate, String [] job, double [] salary) {
    String updateName, updateGender, updateHireDate, updateJob;
    int updateAge;
    double updateSalary;

    System.out.println("Id = " + searchId);
    print("Nubpdate name of employee : ");
    updateName = scanner.next();
    name[searchId-1] = updateName;
    print("Nubpdate agender of employee : ");
    updateGender = scanner.next();
    gender[searchId-1] = updateGender;
    print("Nubpdate agender of employee : ");
    updateAge = scanner.nextInt();
    age[searchId-1] = updateAge;
    print("Nubpdate bire date of employee : ");
    updateHireDate = scanner.next();
    hireDate[searchId-1] = updateHireDate;
    print("Nubpdate job of employee : ");
    updateDate = scanner.next();
    job[searchId-1] = updateHolo;
    zenner.next();
    job[searchId-1] = updateHolo;
    print("Nubpdate salary of employee : ");
    updateObe = scanner.next();
    job[searchId-1] = updateSalary;
    print("NubPATE EMPLOYEE SUCCESS\n");
}
```

function deleteName

```
static String [] deleteName(int searchId, String [] name) {

String [] newName = new String[name.length-1];

for (int i = 0, k = 0; i < name.length; i++) {
    if (i == (searchId-1)) {
        continue;
    } else {
        newName[k++] = name[i];
    }

return newName;

}</pre>
```

function deleteGender

function deleteAge

```
1 static int [] deleteAge(int searchId, int [] age) {
2    int [] newAge = new int[age.length-1];
4    for (int i = 0, k = 0; i < age.length; i++) {
6        if (i == (searchId-1)) {
7             continue;
8        } else {
9             newAge[k++] = age[i];
10        }
11    }
12    return newAge;
13
14 }</pre>
```

function deleteHireDate

```
1 static String [] deleteHireDate(int searchId, String [] hireDate) {
2     String [] newHireDate = new String[hireDate.length-1];
4     for (int i = 0, k = 0; i < hireDate.length; i++) {
5         if (i == (searchId-1)) {
6             continue;
7             continue;
8         } else {
9             newHireDate[k++] = hireDate[i];
10         }
11     }
12     return newHireDate;
13
14 }</pre>
```

Function deleteJob

```
1 static String [] deleteJob(int searchId, String [] job) {
2
3    String [] newJob = new String[job.length-1];
4
5    for (int i = 0, k = 0; i < job.length; i++) {
6        if (i == (searchId-1)) {
7             continue;
8        } else {
9             newJob[k++] = job[i];
10        }
11    }
12    return newJob;
13
14 }</pre>
```

Function deleteSalary

```
1 static double [] deleteSalary(int searchId, double[] salary) {
2     double [] newSalary = new double[salary.length-1];
4     for (int i = 0, k = 0; i < salary.length; i++) {
6         if (i == (searchId-1)) {
7             continue;
8         } else {
9             newSalary[k++] = salary[i];
10         }
11     }
12     return newSalary;
13
14 }</pre>
```

Function searchEmployee

Function reportEmployee

Function print

```
1 static void print(String message) {
2    System.out.print(message);
3 }
```

function println

```
1 static void println(String message) {
2    System.out.println(message);
3 }
```

Function main

```
int amount, choice, searchId;
String username, password, question;
println("======="");
println("======="");
println("======"");
while (true) {
                   print("Username : ");
username = scanner.next();
print("Password : ");
password = scanner.next();
                                                                   print("Insert amount of employee : ");
amount = scanner.nextInt();
                                                                if (amount < 1) {
    println("Invalid number!");
} else if (amount >= 1) {
    break;
                                            String [] name = new String[amount];
String [] gender = new String[amount];
int [] age = new int[amount];
String [] hireDate = new String[amount];
String [] job = new String[amount];
String [] job = new String[amount];
createEmployee(amount, name, gender, age, hireDate, job, salary);
                                                                     displayHome();
print("Choice number 1 - 6 : ");
choice = scanner.nextInt();
                                                                                              case 1:
    println("============");
    println("DATA EMPLOYEE");
    println("===========");
    viewEmployees(amount, name, gender, age, hireDate, job, salary);
    break;
    case 2:
                                                                                              break;
case 2:
    println("========");
    println("SEARCH EMPLOYEE");
    println("===========");
    print("Insert id of employee: ");
    searchId = scanner.nextInt();
    searchEmployee(searchId, name, gender, age, hireDate, job, salary);
    break;
case 3:
                                                                                              break;
case 3:

println("============";
println("UPDATE EMPLOYEE");
println("=============");
print("Insert id of employee: ");
searchId = scanner.nextInt();
updateEmployee(searchId, name, gender, age, hireDate, job, salary);
break;
case 4:
                                                                                              case 4:

println("memoral memoral memo
                                                                                                                     search.u = Scanner.nextInt();
amount--;;
name = deleteName(searchId, name);
gender = deleteGender(searchId, gender);
age = deleteAge(searchId, age);
hireDate = deleteHireDate(searchId, hireDate);
job = deleteJob(searchId, job);
salary = deleteSalary(searchId, salary);
                                                                                                                     println("DELETE EMPLOYE SUCCESS\n"):
                                                                                              break;
case 5:
    println("======="");
    println("========"");
    println("========="");
    println("=========="");
    reportEmployee(amount, name, gender, age, hireDate, job, salary);
    break;
case 6:
                                                                       print("Input again (y/n) ? ");
question = scanner.next();
```

```
package org.example;
import java.util.Scanner;
public class Main {
  static Scanner scanner = new Scanner(System.in);
  static void displayHome() {
    println("HOME");
    println("1. View employee");
    println("2. Search employee");
    println("3. Update employee");
    println("4. Delete employee");
    println("5. Report employee");
   println("6. Exit");
   println("======"");
  }
  static void viewEmployees(int amount, String [] name, String [] gender, int [] age, String []
hireDate, String [] job, double [] salary) {
println("
                      Name Employee | Gender |
                                                            Hire Date
                                                    age
Job
         Salary
                 |");
```

```
for (int j = 0; j < amount; j++) {
           System.out.print("| "+(j+1));
           System.out.print(" " + name[j]);\\
           System.out.print(" "+gender[j]);
           System.out.print(" " + age[j]);
           System.out.print(" "+ hireDate[j]);
           System.out.print(" "+job[j]);
           System.out.printf(" %,.2f |", salary[j]);
           System.out.println();
         }
  }
  static void createEmployee(int amount, String [] name, String [] gender, int [] age, String []
hireDate, String [] job, double [] salary) {
    for (int i = 0; i < amount; i++) {
       print("\nInsert name of employee : ");
       name[i] = scanner.next();
       print("\nInsert gender of employee : ");
```

```
gender[i] = scanner.next();
       print("\nInsert age of employee : ");
       age[i] = scanner.nextInt();
       print("\nInsert hire date of employee : ");
       hireDate[i] = scanner.next();
       print("\nInsert job of employee : ");
       job[i] = scanner.next();
       print("\nInsert salary of employee : ");
       salary[i] = scanner.nextDouble();
    }
    println("CREATE EMPLOYEE SUCCESS\n");
  }
  static void updateEmployee(int searchId, String [] name, String [] gender, int [] age, String
[] hireDate, String [] job, double [] salary) {
    String updateName, updateGender, updateHireDate, updateJob;
    int updateAge;
    double updateSalary;
    System.out.println("Id = " + searchId);
    print("\nUpdate name of employee : ");
    updateName = scanner.next();
    name[searchId-1] = updateName;
```

```
print("\nUpdate gender of employee : ");
  updateGender = scanner.next();
  gender[searchId-1] = updateGender;
  print("\nUpdate age of employee : ");
  updateAge = scanner.nextInt();
  age[searchId-1] = updateAge;
  print("\nUpdate hire date of employee : ");
  updateHireDate = scanner.next();
  hireDate[searchId-1] = updateHireDate;
  print("\nUpdate job of employee : ");
  updateJob = scanner.next();
  job[searchId-1] = updateJob;
  print("\nUpdate salary of employee : ");
  updateSalary = scanner.nextDouble();
  salary[searchId-1] = updateSalary;
  println("UPDATE EMPLOYEE SUCCESS\n");
}
static String [] deleteName(int searchId, String [] name) {
  String [] newName = new String[name.length-1];
  for (int i = 0, k = 0; i < \text{name.length}; i++) {
```

```
if (i == (searchId-1)) {
       continue;
     } else {
       newName[k++] = name[i];
  }
  return newName;
}
static String [] deleteGender(int searchId, String[] gender) {
  String [] newGender = new String[gender.length-1];
  for (int i = 0, k = 0; i < gender.length; i++) {
     if (i == (searchId-1)) {
       continue;
     } else {
       newGender[k++] = gender[i];
  return newGender;
}
static int [] deleteAge(int searchId, int [] age) {
```

```
int [] newAge = new int[age.length-1];
  for (int i = 0, k = 0; i < age.length; i++) {
     if (i == (searchId-1)) {
       continue;
     } else {
     newAge[k++] = age[i];
     }
  }
  return newAge;
}
static String [] deleteHireDate(int searchId, String [] hireDate) {
  String [] newHireDate = new String[hireDate.length-1];
  for (int i = 0, k = 0; i < hireDate.length; i++) {
     if (i == (searchId-1)) {
       continue;
     } else {
     newHireDate[k++] = hireDate[i];
  }
  return newHireDate;
```

```
}
static String [] deleteJob(int searchId, String [] job) {
  String[] newJob = new String[job.length-1];
  for (int i = 0, k = 0; i < job.length; i++) {
     if (i == (searchId-1)) {
       continue;
     } else {
     newJob[k++] = job[i];
     }
  }
  return newJob;
}
static double [] deleteSalary(int searchId, double[] salary) {
  double [] newSalary = new double[salary.length-1];
  for (int i = 0, k = 0; i < \text{salary.length}; i++) {
     if (i == (searchId-1)) {
       continue;
     } else {
     newSalary[k++] = salary[i];
     }
```

```
}
   return newSalary;
 }
  static void searchEmployee(int searchId, String [] name, String [] gender, int [] age, String
[] hireDate, String [] job, double [] salary) {
println("\n=====
      println("| Id |
                      Name Employee | Gender |
                                                     age | Hire Date
         Salary
Job
      System.out.print("| " + searchId);
     System.out.print("
                          " + name[searchId-1]);
                             " + gender[searchId-1]);
      System.out.print("
                          " + age[searchId-1]);
      System.out.print("
      System.out.print("
                          " + hireDate[searchId-1]);
      System.out.print("
                        " + job[searchId-1]);
      System.out.printf(" %,.2f |", salary[searchId-1]);
      System.out.println();
}
```

```
static void reportEmployee(int amount, String [] name, String [] gender, int [] age, String []
hireDate, String [] job, double [] salary) {
    viewEmployees(amount, name, gender, age, hireDate, job, salary);
    System.out.println();
    double total = 0, average = 0;
    int count = 0;
    for (int i = 0; i < amount; i++) {
       count++;
       total += salary[i];
    }
    average = total / count;
    println("| Total Employee | Total Salary of Employee | Average Salary of
Employee |");
    System.out.printf("| %,d", amount);
                                %,.2f", total);
    System.out.printf("
    System.out.printf("
                                    %,.2f \n", average);
```

```
}
static void print(String message) {
  System.out.print(message);
}
static void println(String message) {
  System.out.println(message);
}
public static void main(String[] args) {
  int amount, choice, searchId;
  String username, password, question;
  println("======");
  println("LOGIN STAFF RESTAURANT");
  while (true) {
    print("Username : ");
    username = scanner.next();
    print("Password : ");
    password = scanner.next();
    if (username.equals("admin") && password.equals("admin")) {
      while (true) {
```

```
print("Insert amount of employee : ");
  amount = scanner.nextInt();
  if (amount < 1) {
     println("Invalid number!");
  } else if (amount >= 1) {
     break;
  }
}
String [] name = new String[amount];
String [] gender = new String[amount];
int [] age = new int[amount];
String [] hireDate = new String[amount];
String [] job = new String[amount];
double [] salary = new double[amount];
createEmployee(amount, name, gender, age, hireDate, job, salary);
while (true) {
  displayHome();
  print("Choice number 1 - 6 : ");
  choice = scanner.nextInt();
  switch (choice) {
```

```
case 1:
 println("======"");
 println("DATA EMPLOYEE");
 println("======"");
 viewEmployees(amount, name, gender, age, hireDate, job, salary);
 break;
case 2:
 println("SEARCH EMPLOYEE");
 println("======"");
 print("Insert id of employee : ");
 searchId = scanner.nextInt();
 searchEmployee(searchId, name, gender, age, hireDate, job, salary);
 break;
case 3:
 println("UPDATE EMPLOYEE");
 println("======"");
 print("Insert id of employee : ");
 searchId = scanner.nextInt();
```

```
updateEmployee(searchId, name, gender, age, hireDate, job, salary);
  break;
case 4:
  println("======"");
  println("DELETE EMPLOYEE");
  print("Insert id of employee : ");
  searchId = scanner.nextInt();
  amount--;
  name = deleteName(searchId, name);
  gender = deleteGender(searchId, gender);
  age = deleteAge(searchId, age);
  hireDate = deleteHireDate(searchId, hireDate);
  job = deleteJob(searchId, job);
  salary = deleteSalary(searchId, salary);
  println("DELETE EMPLOYE SUCCESS\n");
  break;
case 5:
  println("REPORT EMPLOYEE");
```

```
println("======"");
        reportEmployee(amount, name, gender, age, hireDate, job, salary);
         break;
      case 6:
         System.exit(0);
         break;
      default:
         println("Invalid input number!");
         break;
    }
    print("Input again (y/n) ? ");
    question = scanner.next();
    if (!question.equalsIgnoreCase("y")) {
      break;
    }
  }
  } else {
    println("Username or password are wrong!");
  }
if (username.equals("admin") && password.equals("admin")) {
```

```
break;
}
}
```