Object Oriented Software Development Project

Introduction

This application allows the management of Company Departments and associated Employee. It will allow the creation, update, display and deletion of both Departments and Employees. The application will support a table like summary view of all Departments or their Employees. It will also allow selection to view Employee details.

Domain Classes

The application makes use of multiple classes used for Departments, Employees, displaying menus and file management.
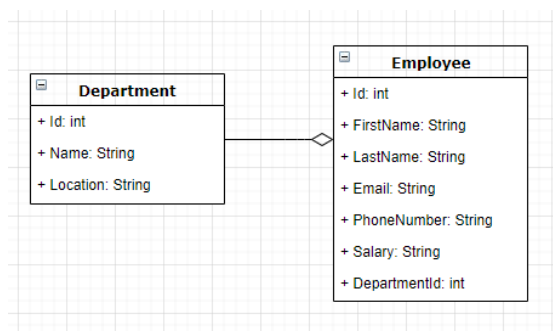
The Employees class contains the following fields

Field	Type
Id	int
FirstName	String
LastName	String
Email	String
PhoneNumber	String
Salary	String
DepartmentId	int

The Departments class contains the following fields.
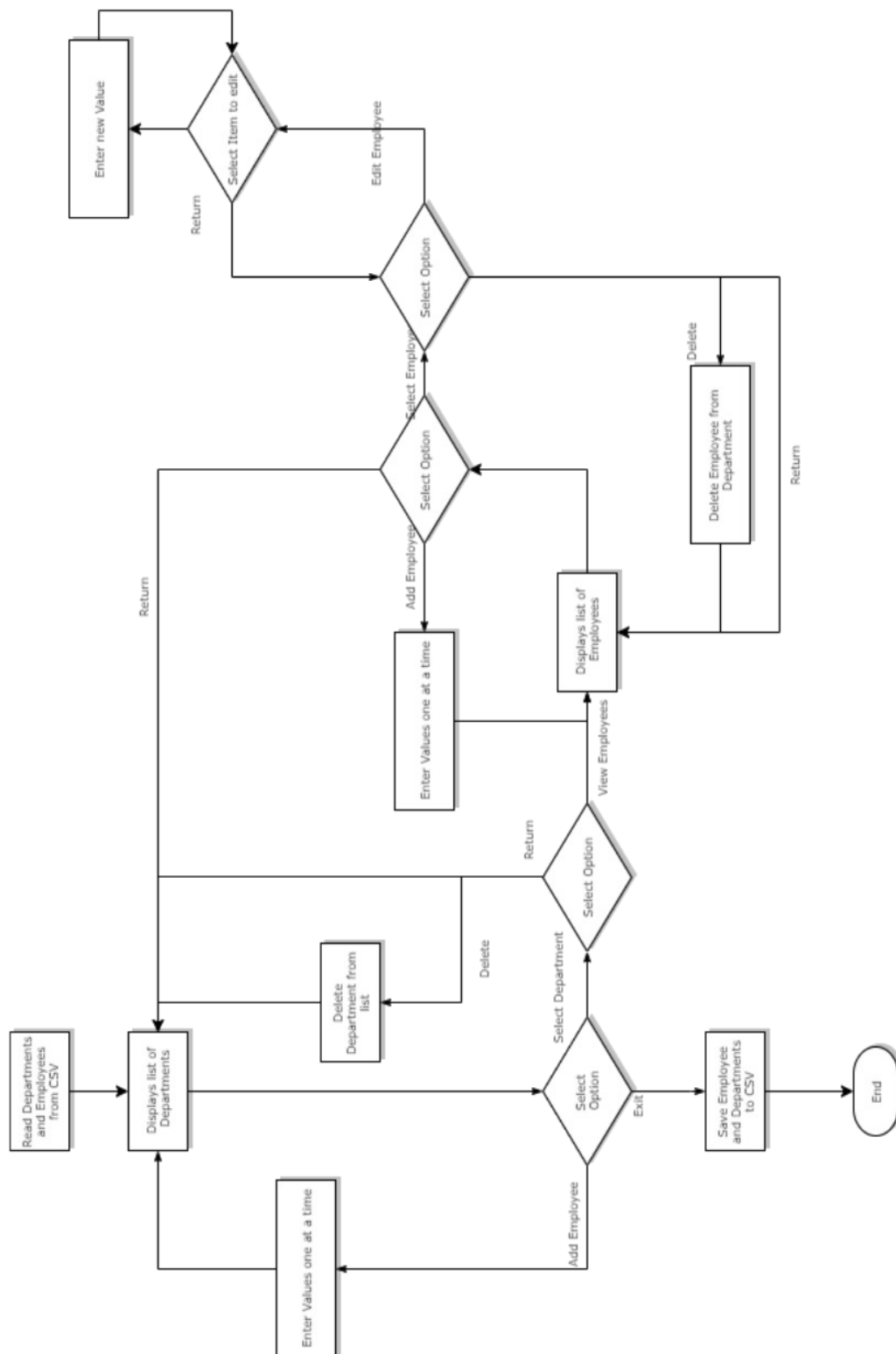
Field	Type
Id	int
Name	String
Location	String
EmployeeList	ArrayList<Employees>

Each Department can have multiple Employees linked via the Employee's DepartmentId linking to the Department's Id

User Stories

Work Flow

When the user enters the system they will be presented with a list of all departments in the system that they can view or add new ones, Within the department they can edit a field, delete the record or add an employee. Once the user is finished the system will save before the system exits.

Menu Structure

Item selection

```
**************************************************
*                 List of Departments            *
**************************************************

+--+----------------------------------------------+
|1 |First Department                              |
|2 |Second Department                             |
|3 |Third Department has a really long name so...|
|4 |Add Department                                |
|0 |Return                                        |
+--+----------------------------------------------+
Enter option number:
```

Allows the user to select the item they wish to look at, add a new one or return the the prior screen

Item Menu

```
**************************************************
*                  Mister E Nigma                *
**************************************************

+----------------------------------------------+
|First Name                                    |
|Mister E                                      |
+----------------------------------------------+
|Last Name                                     |
|Nigma                                         |
+----------------------------------------------+
|Email                                         |
|E.Nigma                                       |
+----------------------------------------------+
|Phone Number                                  |
|0987634                                       |
+----------------------------------------------+
|Salary                                        |
|mil                                           |
+----------------------------------------------+
+----------------------------------------------+
+--+-------------------------------------------+
|1 |Edit                                       |
|2 |Delete                                     |
|0 |Return                                     |
+--+-------------------------------------------+
Enter option number:
```

Allows the user to view the item then edit, delete or return.

Test Documentation

User Story	General
Test Case ID	1
Description	Display the main menu
Given	1. Application is not running 2. Data files exist on disk
When	1. Application is started
Then	1. Main menu is displayed 2. Asks to choose option
Test Status	Passed

```
***************************************************
*               List of Departments               *
***************************************************

+--+------------------------------------------+
|1 |Hello                                     |
|2 |Second Department                         |
|3 |Third Department has a really long name so...|
|4 |Add Department                            |
|0 |Return                                    |
+--+------------------------------------------+
Enter option number:
```

User Story	Add New Department
Test Case ID	2
Description	Add a department into the system
Given	1. Application is running 2. List of departments is displayed
When	1. Enter option to Add Department 2. Enter Name 3. Enter Location
Then	1. New Department Appears with new name 2. Asks to choose next option
Test Status	Passed

User Story	Display Department Details
Test Case ID	3
Description	Display the first Department
Given	1. Application is running 2. List of Departments is displayed
When	1. Enter option for first Department
Then	1. Department is displayed 2. Asks to choose next option
Test Status	Passed

User Story	Edit Department Details
Test Case ID	4
Description	Modify the first Department
Given	1. Application is running 2. First Department is displayed
When	1. Enter option to Edit 2. Enter option for Name 3. Enter Name
Then	1. Name is changed 2. Asks to choose next option
Test Status	Passed

User Story	Display Department Employees
Test Case ID	5
Description	Display the first Departments employee details
Given	1. Application is running 2. First Department is displayed
When	1. Enter option for Employees
Then	1. List of Employees is displayed 2. Asks to choose next option
Test Status	Passed

User Story	Edit Employee Details
Test Case ID	6
Description	Modify the Employee
Given	1. Application is running 2. Employee is displayed
When	1. Enter option to Edit 2. Enter option for First Name 3. Enter new First Name
Then	1. First Name is changed 2. Asks to choose next option
Test Status	Passed

User Story	Delete Employee
Test Case ID	7
Description	Remove an Employee from the system
Given	1. Application is running 2. Employee is selected
When	1. Enter option to Delete
Then	1. See list of Employees (deleted one removed) 2. Asks to choose next option
Test Status	Passed

User Story	Delete Department
Test Case ID	8
Description	Remove a Department from the system
Given	1. Application is running 2. Department is selected
When	1. Enter option to Delete
Then	1. See list of Departments (deleted one removed) 2. Asks to choose next option
Test Status	Passed