



**FACULTY OF COMPUTING
RIPHAH INTERNATIONAL UNIVERSITY**

Project part 2

FACULTY OF COMPUTING

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**SOFTWARE QUALITY ENGINEERING
BS-SE**

PAYROLL MANAGEMENT SYSTEM

Requirement

Admin users will log in their system credentials to access the system .

The admin will be redirected by default after logging into the payroll management system.

The admin will add the employee name in system .

The admin will add the employee address in system .

The admin will add the employee Cnic in system .

The admin will add the employee phone in system .

The admin can admin/staff will manage the list of their company's departments .

The admin/staff will manage the list of their company's positions per department.

The admin/staff will manage the list of allowances .

The admin can update the employee (salary , joining date ,position , bonuses and profile photo) .

The page where the admin/staff will manage the list of deductions.

The admin will manage the list of the employees in employees . The admin will manage the person's allowances and deductions .

The system will calculate dues and salaries for employees with in very short time .

The admin will encode and manage the employees' daily time records.

The admin will lists their payroll and manage for them and calculate the payroll of them.

The page where the employees' payroll is listed.

The popup modal that displays the employee's payslip.

Application of Defect Detection through Test Case Design upon Design and Source Code -----(10%+10%)

USE CASE NAME	Update employee
ACTORS	Admin
DESCRIPTION	The Admin will update the profile of employ
TRIGGERS	The Admin will press edit employ button
PRECONDITIONS	The Admin will login the system.
POST ONDITIONS	The Admin will save the information and quit the system.
NORMAL FLOW	1. Admin will logged in the system 2. Admin can Update the salary of employee . 3. Admin can update the profile photo of employee. 4. Admin can update the joining date of employee . 5. Admin can update the position of employee . 6. Admin can update and add the bonus of employee . 7. Admin will submit the data .
ALTERNATIVE FLOW	1a wrong username and password try again . 6a bonus limit exceeds enter again 7 a cancel the process

CLASSES

Profile photo:

Valid = {jpg ,png ,jfg.}

Invalid = {gif ,fil ,doc ,pdf ,video}

Salary:

Valid = {integers.}

Invalid = {a to z} {!,#,\$,%,^,&,*}, [∉ {[@,.,](#)}]

Bonus:

Valid = {integers.}

Invalid = {a to z} {!,#,\$,%,^,&,*}, [∉ {[@,.,](#)}]

Position :

Valid = {a,b,c....}

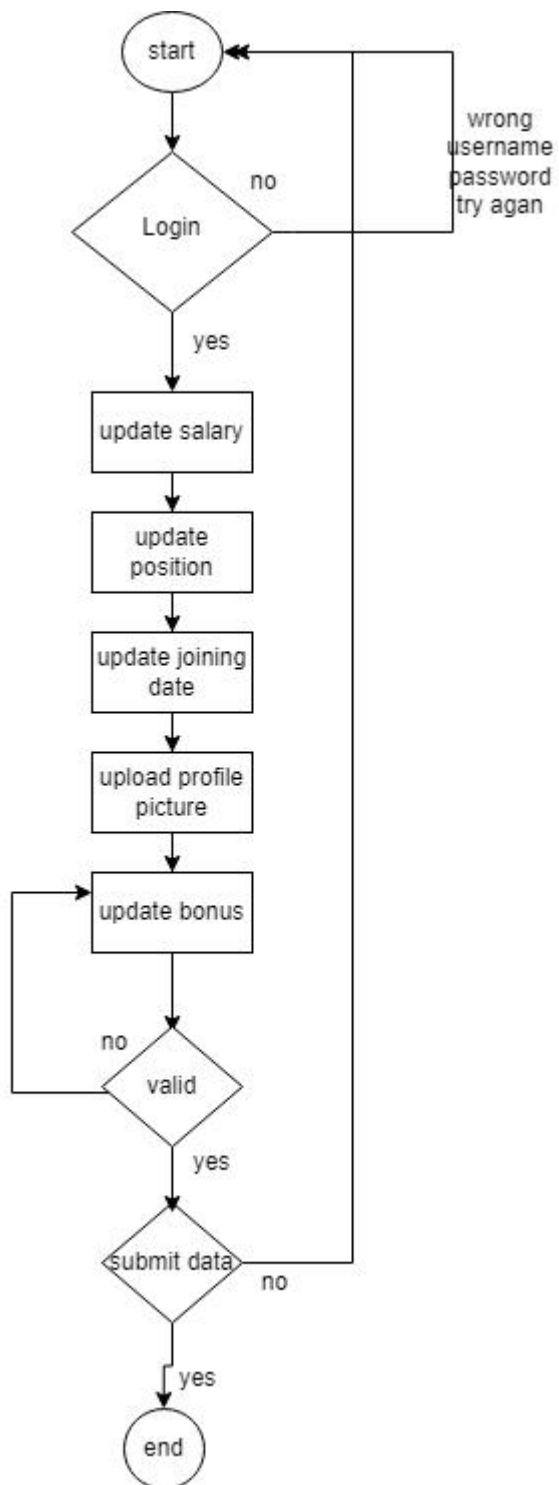
Invalid = {@\$%*!} {1,2,3.....} {#,:}

Joining date:

Valid = {a,b,c....} {1,2,3.....},

Invalid = {@\$%*!} {#,:}

Scenario/ Condition	Position	Joining date	Profile photo	salary	Bonus	ECP & BVA	Expected Result
Updating the profile	Accountant	11 January 2019	.jpg	75000	25000	<u>Profile photo:</u> Valid = {jpg ,png ,jfg.} <u>Salary:</u> Valid = {integers.} <u>Bonus:</u> Valid = {integers.} <u>Position :</u> Valid = {a,b,c....} <u>Joining date:</u> Valid = {a,b,c....} {1,2,3.....},	Profile updated
Updating the profile	3 rd developer	11 June 2020	.png	100000	70000	<u>Profile photo:</u> Valid = {jpg ,png ,jfg.} <u>Salary:</u> Valid = {integers.} <u>Bonus:</u> Valid = {integers.} <u>Position :</u> Invalid = {@\$%*!} {1,2,3.....} {#,:} <u>Joining date:</u> Valid = {a,b,c....} {1,2,3.....},	Something wrong try again



Application of Defect Detection through Test Case Design Source Code (2nd part)

```
}

    ?>

    </tbody>

</table>

<?php

    /// loan from company

    ///job duration is in months

    $job_duaration=$_GET['jobtime'];

    $salary=$_GET['salary'];

    if($salary =< 50000 &&$job_duration < 12){

        echo "Sorry No loan facility for this employ" ;

    }else{

        if($salary >= 50000 && $job_duration>= 12){

            $_SESSION['loan']= 100000 ;

            echo "it can be issued the loan of 100000" ;

        }

        else if($salary >= 70000 && $job_duration>= 12){

            $_SESSION['loan']= 150000 ;

            echo "it can be issued the loan of 150000" ;

        }

        else if($salary >= 100000 && $job_duration>= 12){

            $_SESSION['loan']= 200000 ;

            echo "it can be issued the loan of 200000" ;

        }

        else if($salary >= 150000 && $job_duration>= 12){

            $_SESSION['loan']= 250000 ;

            echo "it can be issued the loan of 250000" ;

        }

    }
```

```

        else if($salary >= 200000 && $job_duration>= 12){
            $_SESSION['loan']= 300000 ;
            echo "it can be issued the loan of 300000" ;
        }
    }

    ?>

</div>
</div>
</div>
</div>
<script type="text/javascript">
    $(document).ready(function(){
        $('#table').DataTable();
    });
</script>
<script type="text/javascript">
    $(document).ready(function(){

```

Identify Classes

Feature	Valid	Invalid
Job_duration	12<=Job_duration	12 > Job_duration
salary	50000<=salary	50000>salary

Design Test Case Which should have Input, ECP and Actual Output.

Job_duration	salary	ECP	Actual output
11	50000	Invalid 12 > Job_duration Valid 50000<=salary	Sorry No loan facility for this employ
16	100000	Valid 50000<=salary Valid 12<=Job_duration	it can be issued the loan of 200000
20	200000	Valid 50000<=salary Valid 12<=Job_duration	it can be issued the loan of 300000

