

# PAYROLL MANAGEMENT SYSTEM

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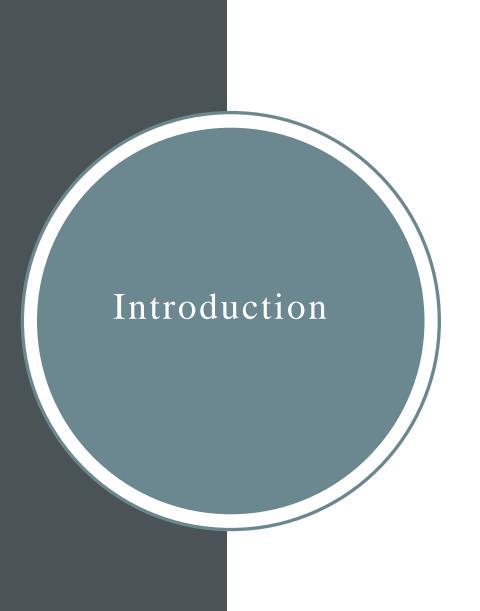
Guided By: Dr. Jonathan Reichental

10th October 2021

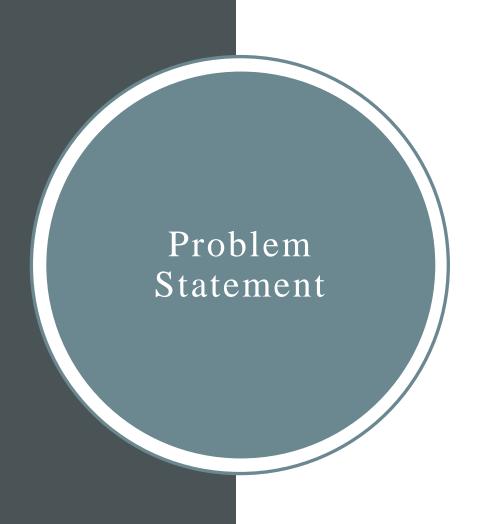
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- Payroll system is an activity that ensures that employees are paid appropriately.
- It is the financial management of an employee's salary, wages, bonuses, net pay, and deductions.
- It is supported by a database that contains information on its employees as well as their attendance records.
- The failure to pay in full and on time might result in a fast departure of a company's workforce.
- However, payroll is more than just sending checks on time.



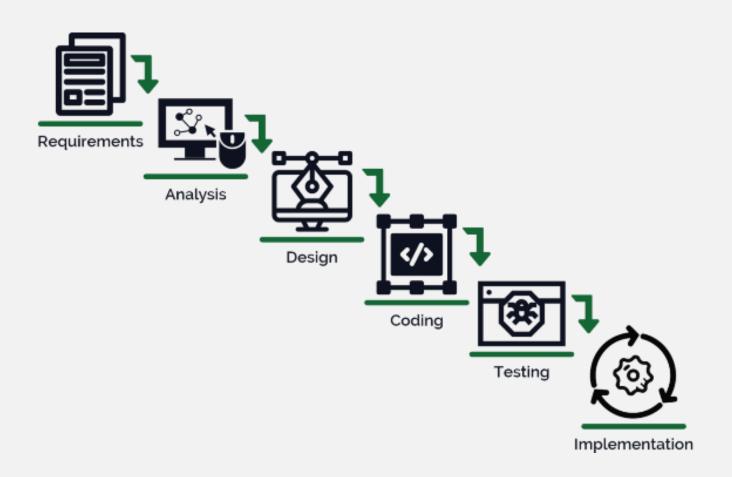
- Difficulty in handling personnel records and inaccessibility of information when needed.
- Dishonesty in terms of using daily time record.
- Annual process of liquidation of monetary amount.
- It takes time to generate report.
- To define the features and requirements for a web application for managing employee's payroll and paycheck statements.



- Automated wage calculations
- Reduced payroll errors with data security
- User-friendly self-service apps for employees
- Detailed record keeping
- Hassle-free integration with time tracking
- Reduce liability by ensuring information is correct prior to payout
- Easier payment electronically through direct deposit



- A Traditional predictive approach to the SDLC has been used for this system.
- The system changes the manual operation into a computer-based system to automate study, provide efficiency, accuracy, timelessness, security and economy.
- System is limited within the scope of employee payroll by generating paycheck statements only.





**Interview**: By interviewing stockholders on one-to-one basis with a pre-determined series of questions.



**Brainstorming**: By involving each team members to brainstorm on design



**Observation**: Observing other applications and understanding how it can be made easy for the intended users.



**Survey**: Sending out questionnaire to employees who can provide more details.

# REQUIREMENTS ANALYSIS

### SYSTEM ANALYSIS

It allows numerous users to access data.

System is available for the existing employees A portal for new employee where they will be entering their details.

Facility for employees to add/view/edit working hours in the system

Employees can check current and previous paycheck statement and download.

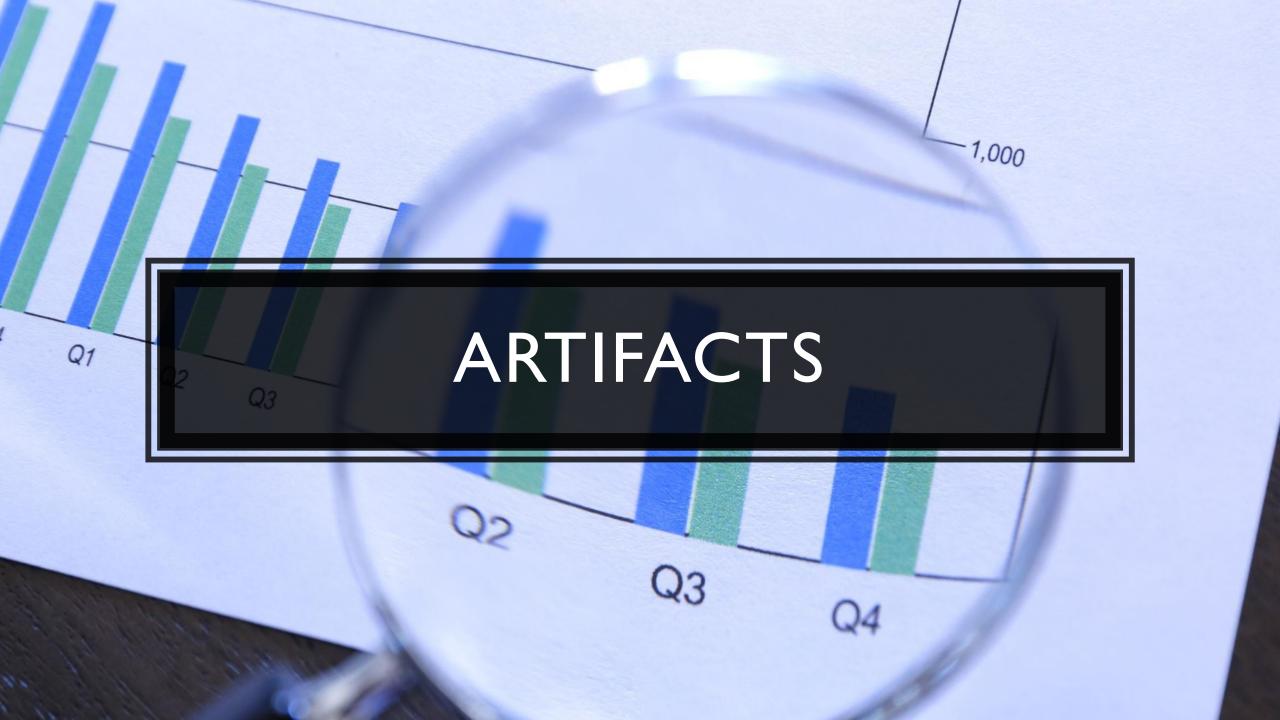
Employees get an alert if hours are not added, or hours are rejected by HR manager.

Employees can add direct deposit details to get payment electronically.

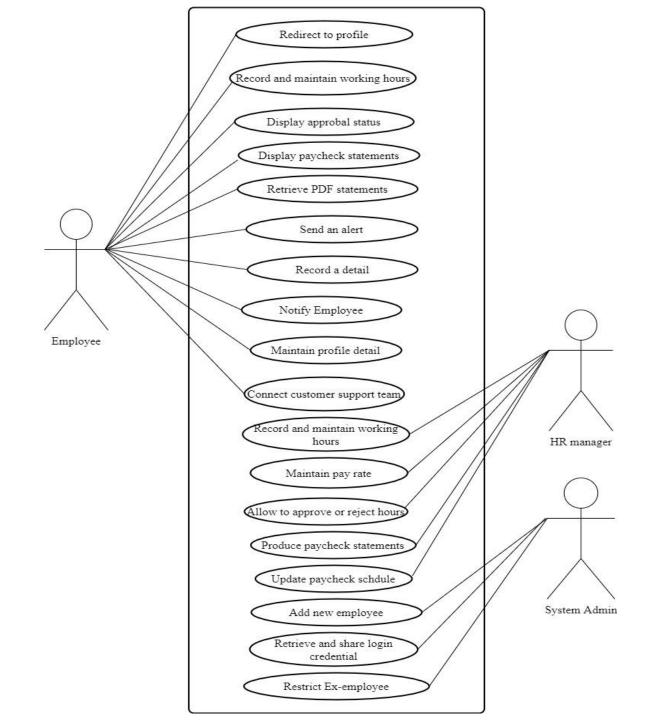


### SYSTEM DESIGN

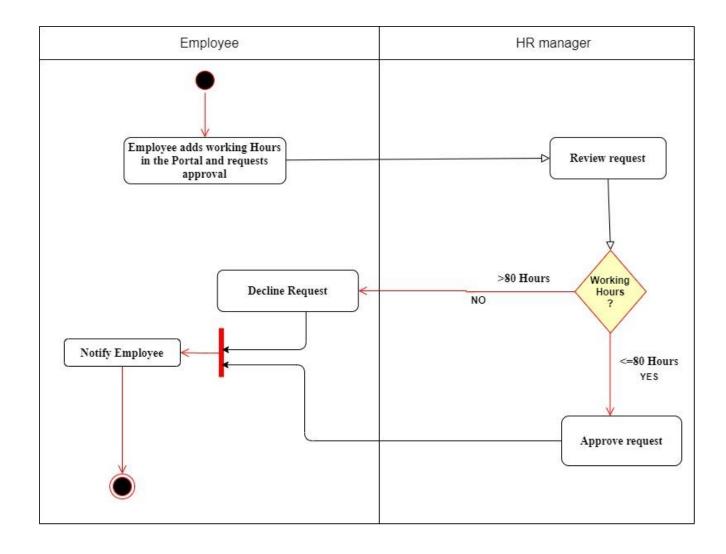
- Payroll system has been designed by using following models:
- Use case diagram
- Activity diagram
- Domain model class diagram
- Sequence diagram

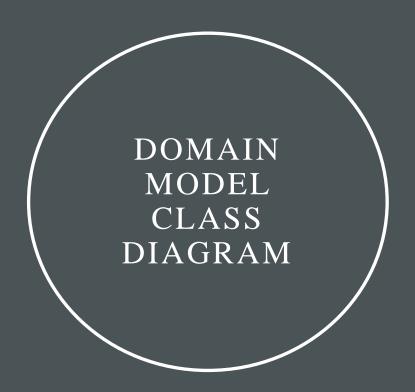


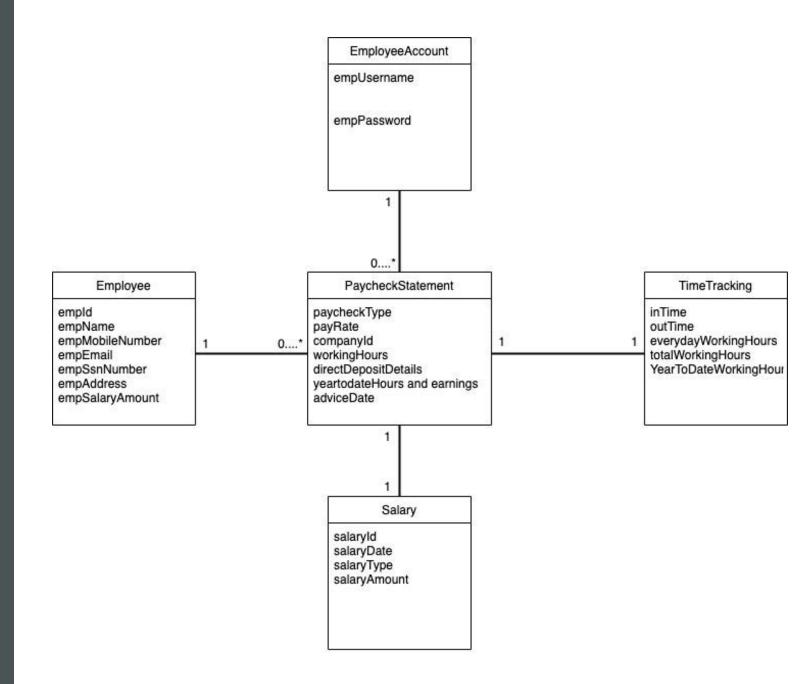




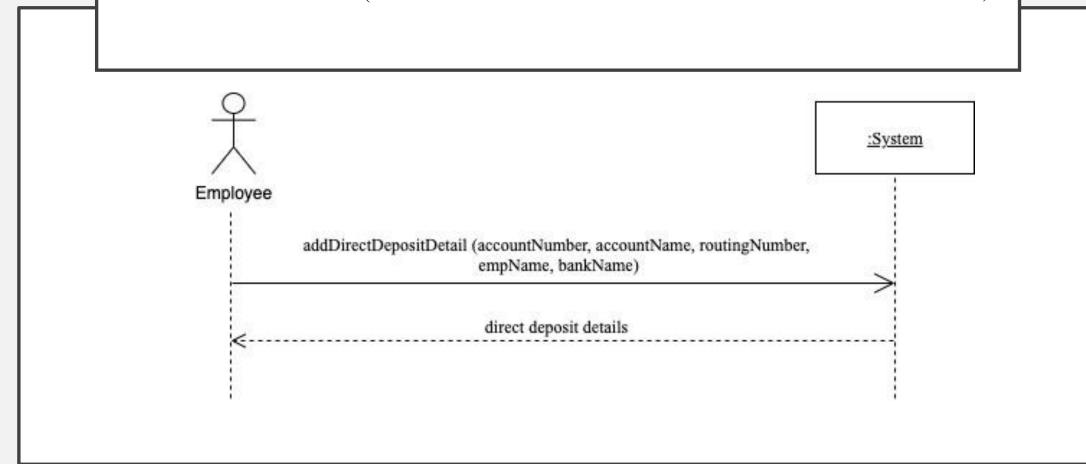




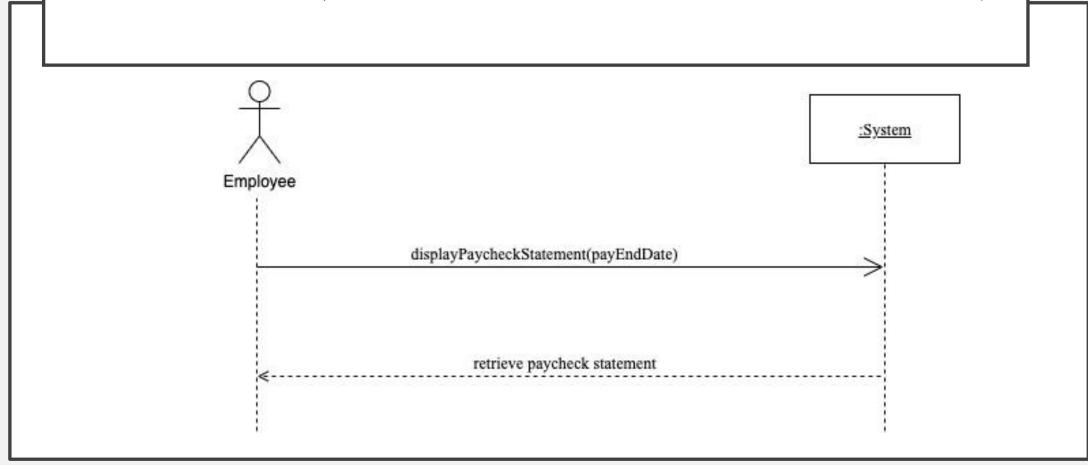




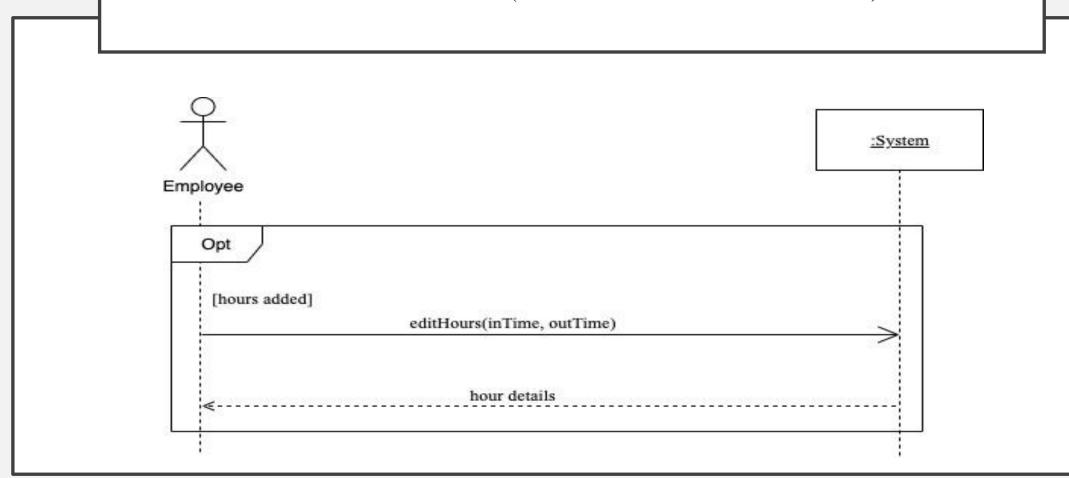
### SSD DIAGRAM 1(USE CASE: ADD DIRECT DEPOSIT DETAIL)



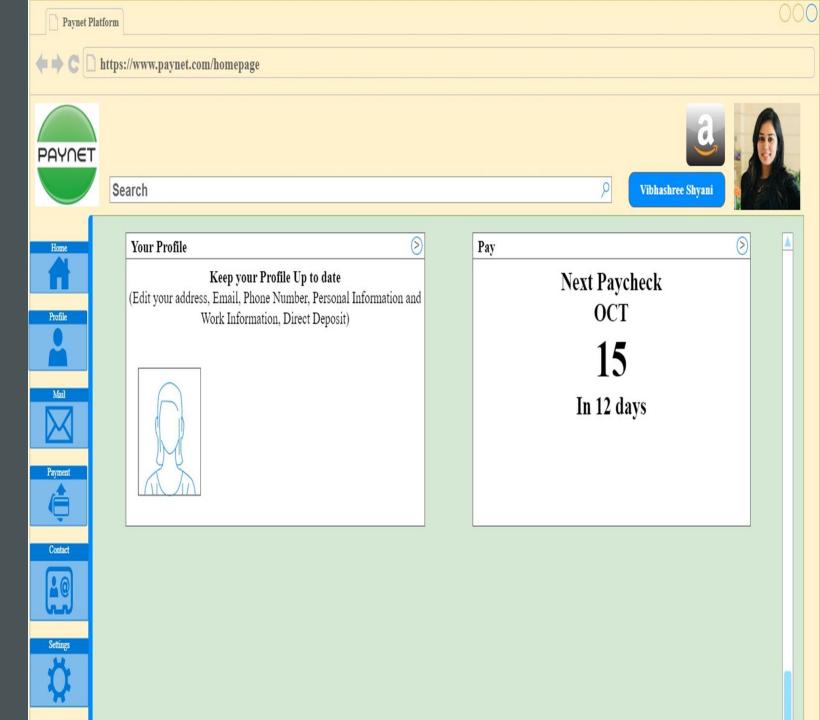
### SSD DIAGRAM 2(USE CASE: DISPLAY PAYCHECK STATEMENT)



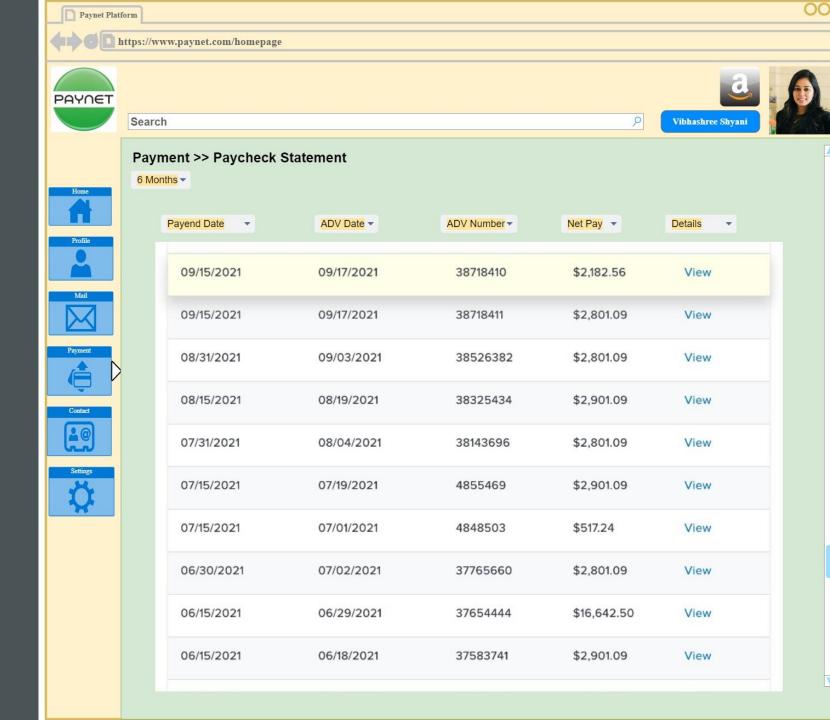
### SSD DIAGRAM 3 (USE CASE: EDIT HOURS)













#### **Paycheck Statement**



#### Amazon

Abc street,

Sunnyvale, CA 94089

**Check No: 12345** 

Department: Dept-1

Pay Rate: \$200,000 Annual

Check Date: 10/15/2021

Pay Period: 10/01/2021 - 10/15/2021

#### Vibhashree Shyani

Abc Street, Apt#123 San Jose, CA 95051 Employee ID: 00001014 Location: San Jose-HQ

Business Title: Business Analyst

Non-Negotiable

Net Pay

USD \$2700.00

**Hours and Earning** Description Hours **Current Earnings** Year-to-Date Hours 100.00 2700.00 200.00 5400.00 Regular Reimbursement 0.00 0.00 0.00 0.00 Holiday 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 **Bonus Gross Pay** 100.00 2700.00 200.00 5400.00

Direct Deposit		
Account Type	Account No.	Deposit Amount
Checking	XXXX1234	2700.00
Total		2700.00





This system is mainly targeted to the employees, HR Manager and admin staff of small and medium sized businesses.



Main goals - Reduce time for salary calculation, costeffective, efficient handling of records, less human intervention and waste less paper.



Access to the historical pay details.



This system is easy to use and completely secure and controlled by the admin.



This system is easily compatible with most of the web browsers.

### RECOMMENDATION

In the future, a leave structure may be added so that employees can check their leave balance, credited leave hours in each pay.

Regular backup method for the employee database could be introduced to avoid disasters.

The system may be built in such a way that existing functionality could be upgraded.