Software Requirements Specification

for

Employee Management System

Version 0.1

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Revision History

Name	Date	Reason For Changes	Version

1.   Introduction

1.1 Purpose

An employee management system is a distributed system developed to maintain the employee details and the company workflow process systematically. EMS helps to eliminate the manual process and saves a lot of time and money. This system maintains the professional and personal details of the employees and the company in a safe manner. The employee management system lowers the burden and the pressure on HRs and the business managers.

1.2 Intended Audience and Reading Suggestions

This document is for developers, project managers, marketing staff,employees, testers, and documentation writers, related to externlabs. This document contains all the descriptions of this project. Any mentioned member can read this project according to their need directly for the point.

1.3 Product Scope

- This software Employee management system is to create Extern labs employees and also Manage employees details and projects details.
- This system will be focusing on developing a web-based employee management system.
- The main module is leave request, approve/deny leave. check approve/deny and employee report. Employee information management module will keep track of employee reports.

1.4 References

Document Number	Title	Location	Date
1	SRS templates https://docs.google.com/document/d/1yGGwowzPUUH4PZA-vJbVKXHxsMNkTBky/edit	Extern Labs, Jaipur	14/12/20
2	UI Copy of Dashboard.pdf	Extern Labs, Jaipur	18/12/20

2. Overall Description

2.1 Product Perspective

This product provides a way to login to an employee account and see own and other employee details, leaves, holidays, working hours, attendance In and out time, see every news and update company related, Incident, employee Review .

2.2 Product Functions

    a. Login employee account, employee id and password,
    b. Only Upcoming holidays, News and Events **Extern labs** related,
    c. Employees see their personal details,contact details
    d. Employees see their leave, holidays, entry and exit time from the calendar
    e. See leave summary and details, leave apply
    f. Download Extern Labs Policies and Form
    g. Employee See their Attendance date, total time, out time
    h. Employee Behaviour positive and Negative Feedback
    i. Project details, daily update, project working status, project team

2.3   User Classes and Characteristics

- The employee manages the same activities Like "leave apply", "View policies", " add incident", "add feedback", " view own details", "View news, event and upcoming holidays".

- The Admin of the backend, or the PostgreSQL database, To manage all the activities like "manage employee details", "manage Leave", "manage Feedback", "company Policies" ,"manage Calendar", "verifications of users" there should be a **Admin**.

2.4   Operating Environment

Python (Django-Rest)
Wagtail CMS
JWT Authentication
VS Code
Git
JS

2.5   Design and Implementation Constraints

- Language: Python with Django, HTML5, CSS3

- Database: PostgreSQL
- Working internet connection is required to access the application.
- The application should be available to serve 24*7 over the internet.
- The application is dependent on the Postgres database which should serve the application 24x7.

2.6   Assumptions and Dependencies

- We assume the Customer,storeowner,admin has a computer or laptop
- We assume the user has an internet connection in order to navigate to the login
- We depend on the correct operation between Python+Django and PostgreSQL

3. External Interface Requirements

3.1   User Interfaces

The user interfaces of the EMS are to be achieved through a web application. Thus, it will use web technologies such as HTML, CSS,React, JavaScript, django rest framework etc. There will be forms, buttons, select boxes, text boxes to interact with the user. There is a main login interface of the system. Each level of user will login to the system by this login page. In the login page, there is an authentication system to verify that the user is an employee of Extern Labs. There is also an authorization system for each user to access his or her own pages and access rights (Employee, Team Lead, Administrator, HR). Each module has its own user interface. Every user type can only access its own interface.

3.2   Hardware Interfaces

3.2.1 Server Side

The web application will be hosted on one of the servers of the company and connected to Postgresql DB.

3.2.2 Client Side

The system is a web-based application that is to be used by only the employees of the company. The user must have an internet connection in order to access the system and to use

the application. Users are required to have a modern web browser such as Mozilla Firefox, or Google Chrome etc.

3.3 Software Interfaces

- SQL Server (PostgreSQL) Interface
  The SQL tables will contain all the information collected. It will be accessible by our software via the Django Interface.
- OS: Windows, Linux, MacOS having access to web Browser.
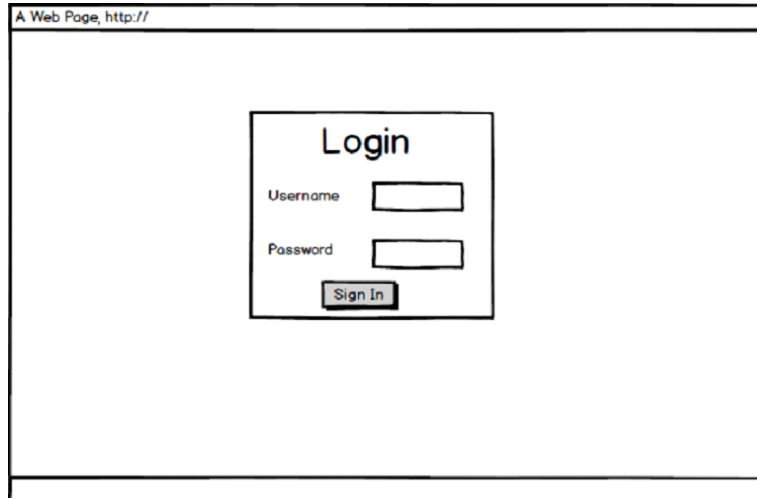- In this system, Django Rest Framework would be used to provide the backend along with modern frameworks like Reactjs to provide the front-end interface.

4.　　System Features

4.1 Employee Register

The employee is registered by **Hr** on the portal of the employee management system project. only HR can add and remove an employee on the application.
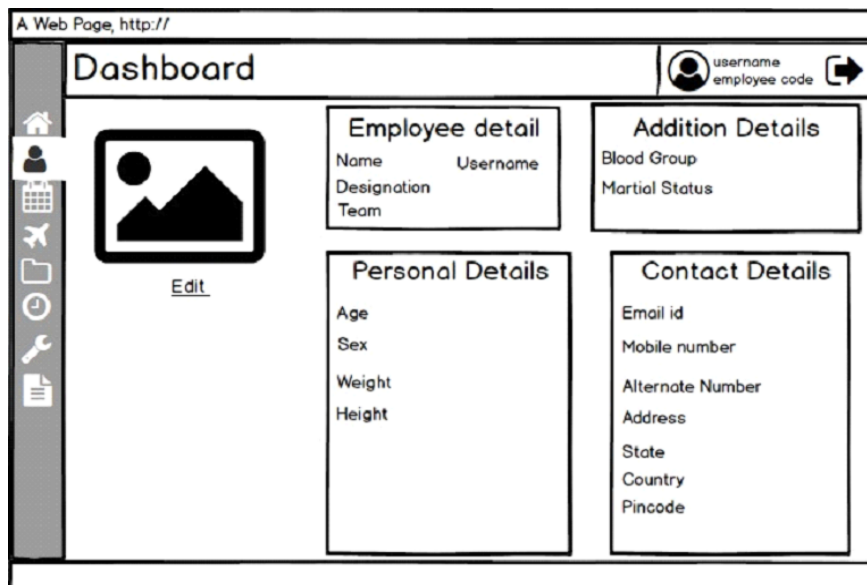
4.2 Login and Logout

The employee should be defined in the Database of the application in order to Login and Logout of the system. The login and logout system would be the same for all Employees levels.

4.3 Employee Management System

The EMS would only be accessible to the HR and the admin, where they can manage, add, remove employees, and enroll into the database. The HR roles also include the ability to add special days, News, Event , only Upcoming holidays, etc to the system and approving and disapproving leave applications. Employees can view their own details Like personal details, contact details.

4.4 Calendar

The Calendar System would only be accessible to the HR and the admin, where they can manage, view Employees on leave and out come into the database. The HR roles also include the ability to add employees on leave to the system.

A Web Page, http://							
Dashboard						username employee code	
◄			JUNE 2019				►
S	M	T	W	T	F	S	
26 06:30	27 06:30	28 07:30	29 04:00	30 On Leave	31 Holiday	1 Weekend	
2 Weekend	3	4	5	6	7	8 Weekend	
9 Weekend	10	11	12	13	14	15 Weekend	
16 Weekend	17	18	19	20	21	22 Weekend	
23 Weekend	24	25	26	27	28	29 Weekend	
30 Weekend	1	2	3	4	5	6	

4.5 Incident Summary

The Incident Summary would only be accessible to the HR and admin, where they can manage, view all employee incidents.

4.6 Leave summary

The Leave Summary would only be accessible to the HR and Admin, where they can manage, view and add, remove leave details.

4.7 Employee Behaviour Feedback

The employee behavior feedback would only be accessible to the HR and Admin, where they can manage, view, remove and add all employees' feedback. Employees can add behavior feedback from EL employees .

4.8 Attendance Management

The Attendance Management would be done with in and out time. The in and out time would be maintained in the database for all employees, which would help in calculating the working days and the working hours of the employees.

4.9 Leave Apply

The Software intends to provide a leave apply section where employees can apply for leaves. This would notify their team leader and the HR and they can approve it or disapprove it with a click, and view leave history.
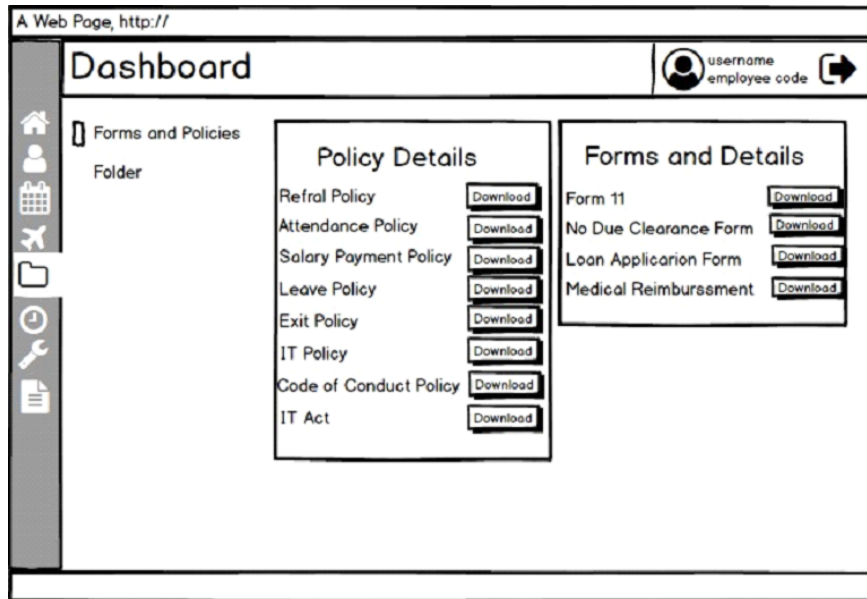
4.10 Policy and Form details

The policies and form details would be accessible and downloaded to the employee, HR, admin. But HR and admin can add and remove policies.

4.11 Project Management System

The PMS would only be accessible to the HR ,the admin and admin should be able to provide a kind of access , they can manage, add projects , remove projects, add PTM and remove PTM ,add into the DB, add requirements, remove requirements .

5.   Other Nonfunctional Requirements

5.1   Performance Requirements

- **Goal Management** This EMS maintains the professional and personal details of the employees and project details in a safe manner.

- **A Performance Evaluation** Employee works with many other people, such as developers, team members. Any feedback provided by those that the employee interacts with needs to be added to the employee's record.

5.2   Safety and Security Requirements

In the login page, there is an authentication system to verify that the user is an employee of Extern Labs. There is also an authorization system for each user to access his or her own pages and access rights (Employee, Team Lead, Administrator, HR).

5.3   Software Quality Attributes

- The system must deliver services to the client when requested
- The application must be reliable enough so that when different users perform the same task, the expected outcome does not differ
- The application must be reliable enough so that when users perform normal functions, the system does not fail
- The application must be flexible enough to support Google Chrome and Firefox 18 browsers
- The application must be able to support Windows and Mac OS operating systems
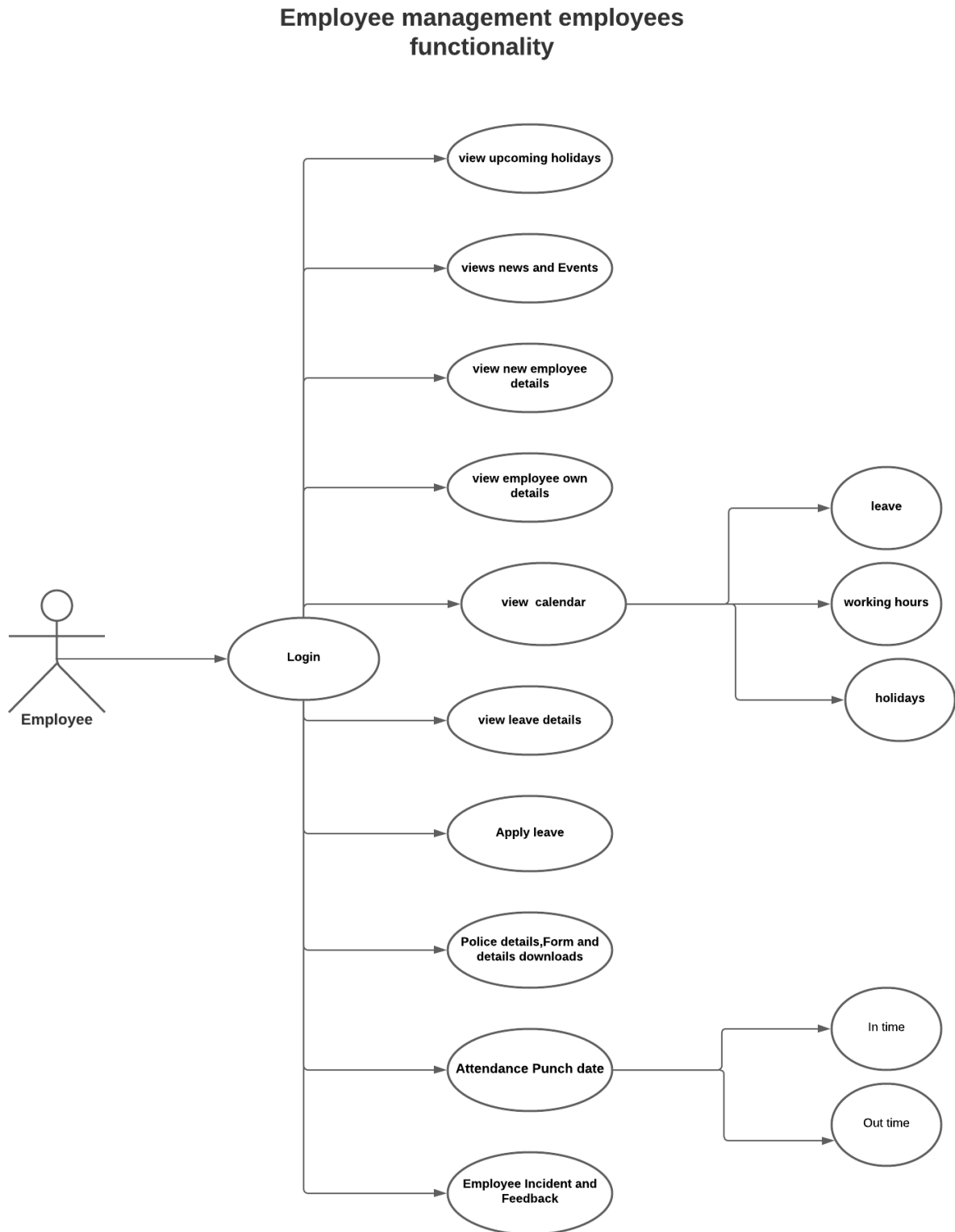
Appendix A: Glossary

Term	Definition
EL	Extern Labs
EMS	Employee Management System
DB	Database
PMS	Project Management System
HTTP	hypertext Transfer Protocol
SMTP	Simple Mail transfer Protocol
PTM	Project Team Member

Appendix B: Analysis Models

Employee Management Admin functionality

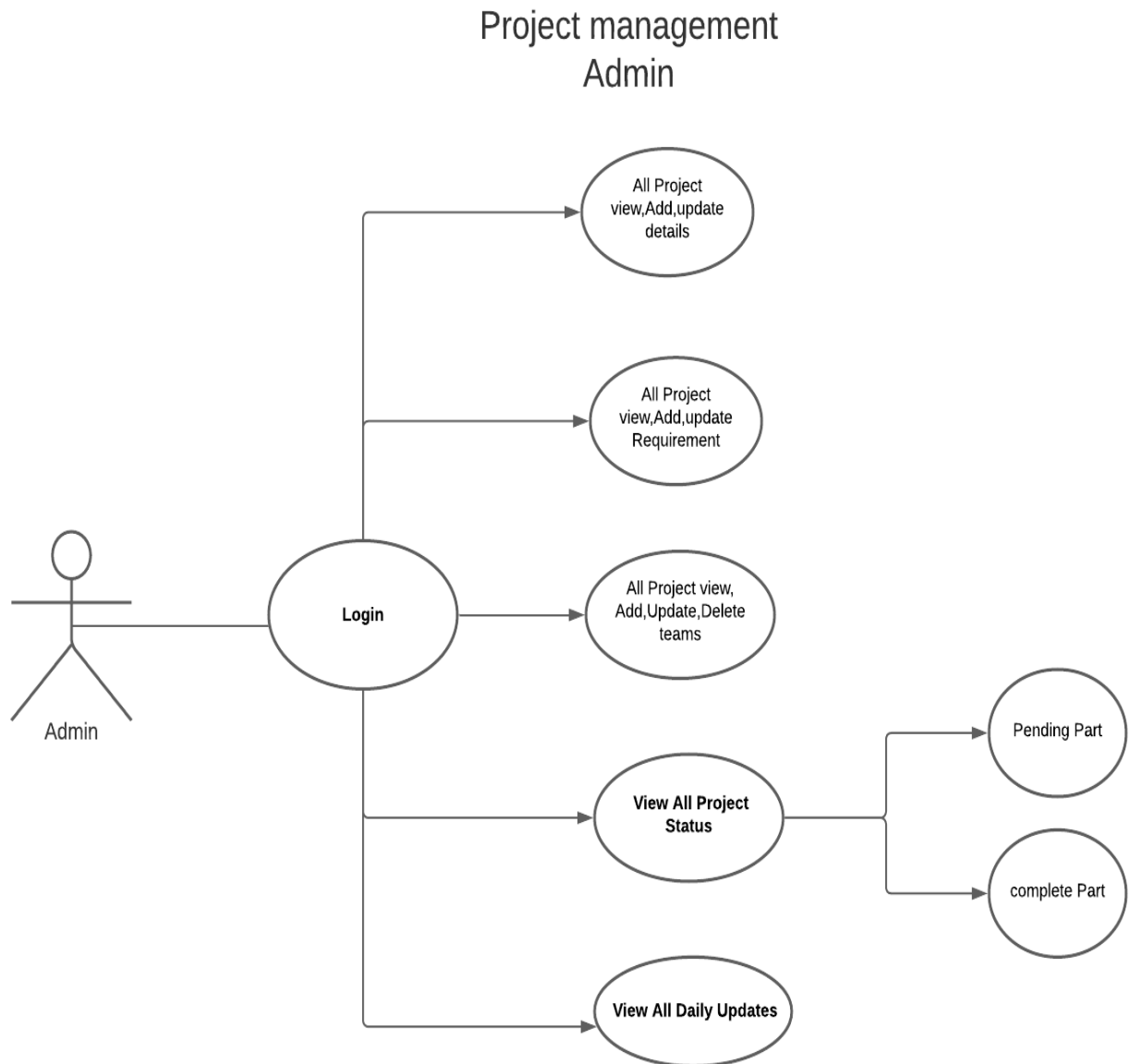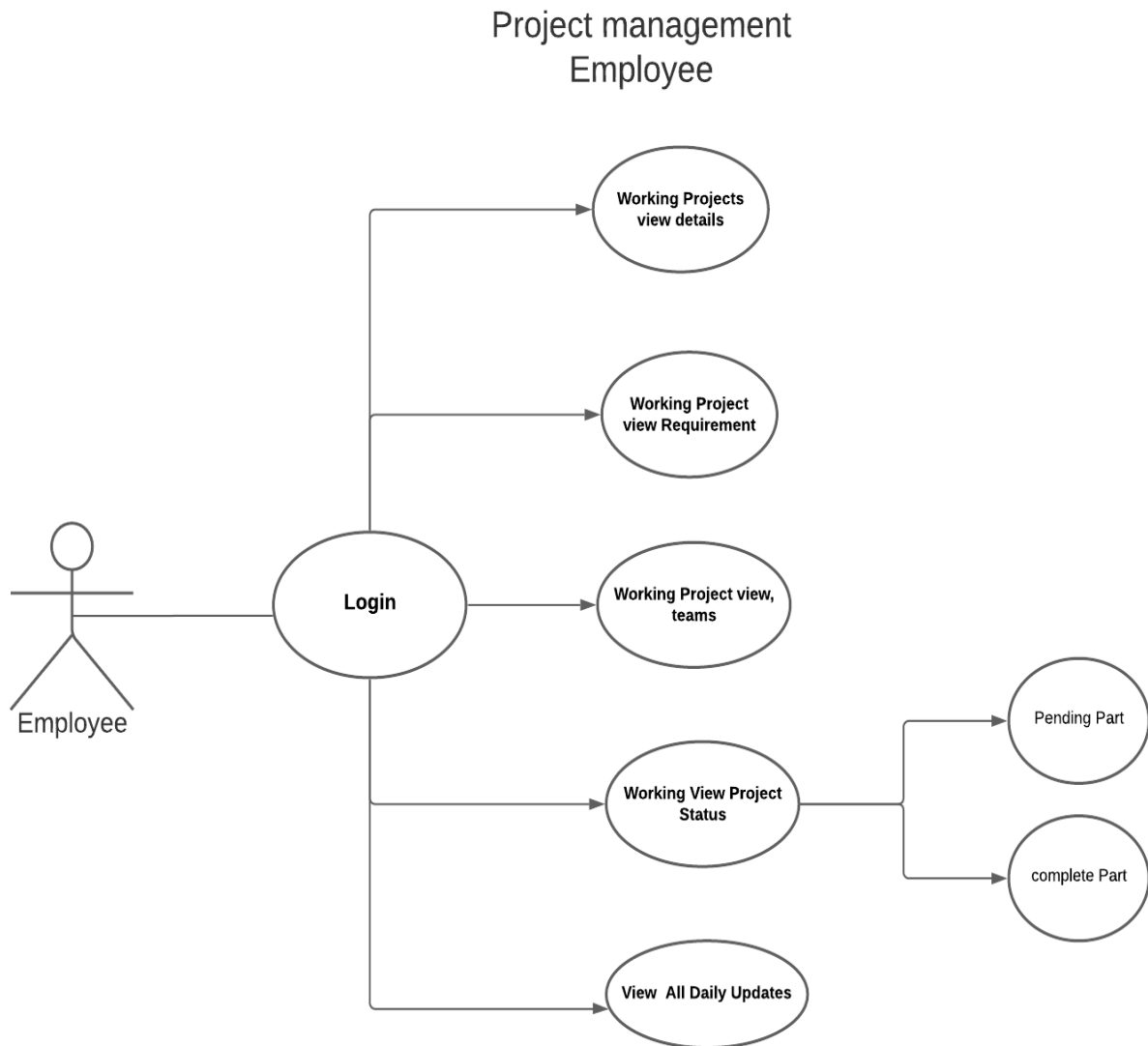**Employee management Admin functionality**

7.2 Employee Management Employee functionality

Employee management employees functionality

7.3 Project Management Admin functionality

Project management
Admin

All Project
view,Add,update
details

All Project
view,Add,update
Requirement

Login

All Project view,
Add,Update,Delete
teams

Admin

View All Project
Status

Pending Part

complete Part

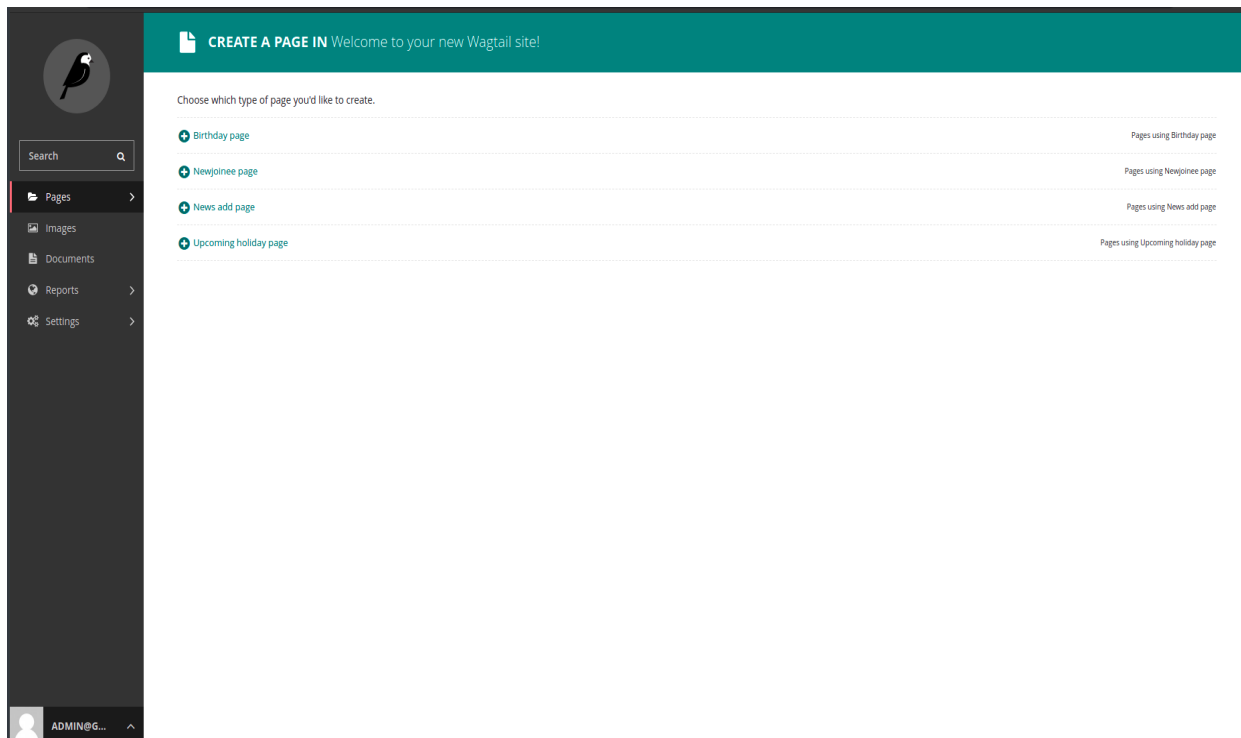View All Daily Updates

7.4 Project Management Employees functionality

Project management
Employee

8.Wagtail Implementation :-

We use Wagtail framework for content management system in our django project employee management system.we use wagtail to interact with django-rest framework because wagtail cms framework provides its own admin and templates. so HR can post news in wagtail like birthday wishes,holiday etc and all data saved in the django-admin database so we can access from the django-admin database through the django rest framework api.

Django-admin :-

ADMIN INTERFACE	
Themes	+ Add

ATTENDANCE	
Attendances	+ Add

AUTHENTICATION AND AUTHORIZATION	
Groups	+ Add

CELERY RESULTS	
Task results	+ Add

EMPLOYEES	
Bankaccounts	+ Add
Departments	+ Add
Update requests	+ Add
Users	+ Add

FORM_AND_POLICY	
Documentations	+ Add

LEAVE	
Leave applications	+ Add

NEWS	
Birthday pages	+ Add
Newjoinee pages	+ Add
News add pages	+ Add
Upcoming holiday pages	+ Add

Content type: news | birthday page

Owner: EL01

Page title:
Optional. 'Search Engine Friendly' title. This will appear at the top of the browser window.

☐ Show in menus
Whether a link to this page will appear in automatically generated menus

Search description:

Go live date/time:
Date: Today
Time: Now

Expiry date/time:
Date: Today
Time: Now

First published at:
Date: 2021-04-20   Today
Time: 17:54:32   Now

Birthday date: 2021-04-11   Today |

Employee name: Ashutosh sharma

Emp image:
Currently: upload/Logo.png
Change: Choose file   No file chosen

Body:
<p>Wishing you a very happiest birthday </p><h2><i>Ashutosh Sharma</i></h2>