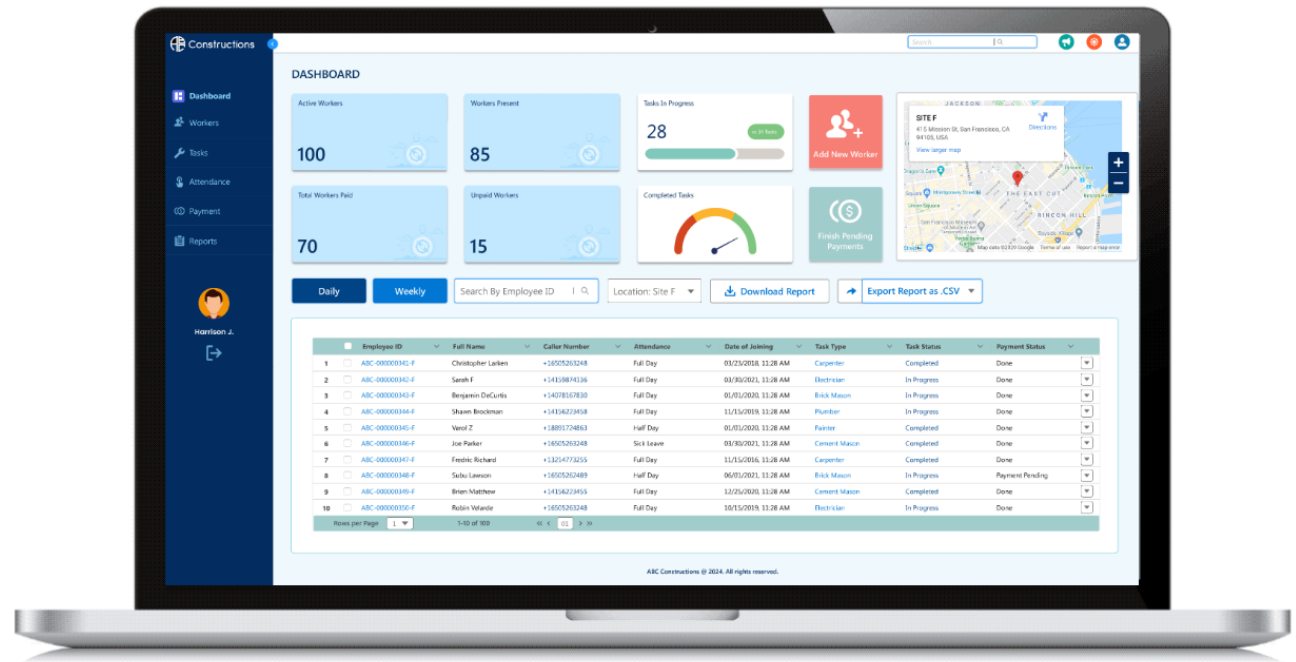


Case Study Assignment – ADP



UX Case Study

UX Case Study ABC Constructions



FIGMA Project Link: <https://www.figma.com/proto/riOT0k5aL0TR6hoDDTOvsk/ABC-Construction-Company?node-id=17-69239&t=YFrF0Cpp7abuZSGv-0&scaling=contain&page-id=0%3A1>

Problem Statement

ABC Construction Company, managing 1500–2000 workers across 10 sites, struggles with inefficient task assignment, attendance tracking, and payment processing due to manual systems. Poor coordination and data management add to the administrative burden. A comprehensive Workforce Management System is needed to streamline these processes, improve communication, and enhance overall efficiency and worker satisfaction.

Objectives & Goals

- **Streamline Task Assignment:**
Implement a centralized platform to efficiently assign tasks based on worker skills, availability, and location.
- **Automate Payment Processing:**
Ensure accurate and timely payments through an automated payment system, reducing administrative workload.
- **Enhance Attendance Monitoring:** Deploy a robust attendance tracking system that provides real-time data and reduces manual errors.
- **Improve Communication and Data Management:** Establish a unified communication platform and centralize data management to facilitate better coordination and maintain accurate records.

Interview to get the feedback from Client. (Qualitative Research)

1. **Task Management:**
 - How do you currently receive task assignments?
 - What challenges do you face when assigning tasks to workers?
 - Can you describe a recent instance where task assignment was particularly difficult?
2. **Attendance Tracking:**
 - How do you currently track worker attendance?
 - What issues have you encountered with the current attendance tracking system?
 - Can you provide examples of discrepancies you've noticed in attendance records?
3. **Payment Processing:**
 - How are worker payments currently processed?
 - Have you experienced any delays or inaccuracies in payment processing?
 - What improvements would you suggest for the payment processing system?
4. **Communication:**
 - How do you communicate with supervisors and workers on a daily basis?
 - What challenges do you face in communication on the construction site?
 - How do communication gaps impact your work or project timelines?
5. **Data Management:**
 - How do you currently access and manage worker-related records?
 - What difficulties have you encountered with the current data management system?
 - Can you provide examples of how missing or outdated information has affected your work?

Quantitative Research

The research observations reveal significant challenges across various aspects of ABC Construction Company's operations. Task management faces clarity issues, attendance tracking is cumbersome, and payment processing encounters delays and inaccuracies. Communication gaps persist, and data management struggles with scattered records. These observations underscore the pressing need for streamlined systems and improved communication channels to enhance overall efficiency and productivity.

Observations

80%

Task Management

- Workers express frustration with unclear task assignments, impacting productivity.
- Supervisors struggle to efficiently assign tasks due to manual processes, leading to delays.

70%

Attendance Tracking

- Workers find the current attendance tracking system time-consuming and error-prone.
- Supervisors report discrepancies in attendance records, affecting payroll accuracy.

06%

Payment Processing

- Workers mention delays and inaccuracies in payment processing, causing dissatisfaction.
- Supervisors note challenges in manually calculating and processing payments, leading to administrative burden.

75%

Communication

- Workers and supervisors experience communication gaps due to reliance on inefficient communication methods.
- Workers express the need for a centralized communication platform to streamline communication.

65%

Data Management

- Workers and supervisors find it challenging to access and manage scattered records, hindering workflow.
- Instances of missing or outdated information affect decision-making and project progress.

User Needs

- **Efficient Task Management:** Users require a streamlined system for assigning tasks to workers, ensuring clarity, and reducing delays.
- **Accurate Attendance Tracking:** Users need a reliable attendance tracking system to record worker attendance accurately and efficiently, minimizing errors and discrepancies.
- **Timely Payment Processing:** Users seek an automated payment processing system that ensures timely and accurate payments to workers, reducing administrative burden and improving worker satisfaction.



Competitor Analysis

Competitor 1 – Procore

Features :

- A construction management software that offers features for project management, task assignment, document management, and communication.



Competitor 2 – Buildertrend

Features :

- A construction project management software that includes features for task tracking, scheduling, budgeting, and client communication.

User Persona



Name: John Doe
Site Manager

About



45



New York



MBA



Employee

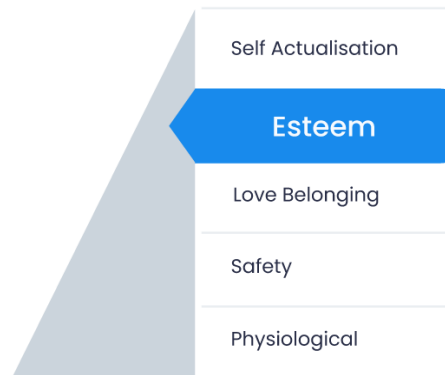
Goal

Efficiently assign tasks, monitor worker attendance, and manage payments.

A day in their life

- Morning: Manually checks in workers and records attendance, spending significant time cross-referencing schedules and skill sets.
- Mid-Morning to Afternoon: Assigns and monitors tasks, resolves on-site issues, and updates records, often through inefficient face-to-face or phone communications.
- Late Afternoon: Compiles and enters attendance and payroll data, ensuring accuracy for daily wage payments, and prepares end-of-day reports for the main office.

includes Task



Pain points

- Time-consuming task assignments, difficulty tracking worker attendance, ensuring accurate and timely payments.



As a site manager, I spend a significant portion of my day manually tracking attendance and assigning tasks, which is both time-consuming and error-prone. The lack of a centralized system makes it difficult to manage everything efficiently, leading to delays and potential inaccuracies in worker payments. I need a more streamlined process to handle these responsibilities effectively.

Task Mapping

	Step 1: Check -In Workers	Step 2: Assign Tasks	Step 3: Monitor Progress	Step 4: Resolve Issues
Task	Manually recording attendance	Cross-referencing skills and availability manually	Frequent communication disruptions; inefficiency	Updating records and communicating changes manually
Environment	Construction Site Office	On-Site, Various Areas	Throughout Construction Site	Various Locations, Site Office, End of Day
Challenges	Prone to errors	Difficult to efficiently match workers to tasks	Can't be everywhere at once to ensure tasks are done correctly	Cumbersome updating and informing process. Error-prone reporting process
Emotions	Frustrated	Overwhelmed	Stressed	Annoyed, Exhausted
Thoughts	"This takes too much time and mistakes are common."	"It's hard to match the right workers to the right tasks efficiently."	"I can't be everywhere at once to ensure tasks are done right."	"Updating records and informing everyone is too cumbersome."
Design Opportunity	Implement a digital check-in system to automate attendance logging.	Develop a centralized platform for task assignment based on skills and availability.	Introduce a mobile app for real-time task updates and communication.	Provide an integrated system for real-time updates and notifications. Automate report generation with accurate, real-time data integration.

Eisen Hover Matrix

	Urgent	Not Urgent
Important	<ul style="list-style-type: none">• Tasks: Check-in workers, assign tasks, resolve immediate issues.• Emotions & Thoughts: Frustrated, overwhelmed, stressed.• Design Opportunities: Implement a digital check-in system and centralized platform for immediate task assignments.	<ul style="list-style-type: none">• Tasks: Develop task assignment system, monitor worker performance, implement training programs.• Emotions & Thoughts: Thoughtful, proactive.• Design Opportunities: Develop comprehensive, automated task management and training systems.
Not Important	<ul style="list-style-type: none">• Tasks: Answering routine inquiries, updating records manually, routine communication.• Emotions & Thoughts: Annoyed, interrupted.• Design Opportunities: Create a FAQ system, automate routine updates and communication.	<ul style="list-style-type: none">• Tasks: Filing paperwork, general site maintenance, archiving old records.• Emotions & Thoughts: Relaxed, low-priority.• Design Opportunities: Digitize and automate archival processes, create efficient filing systems.

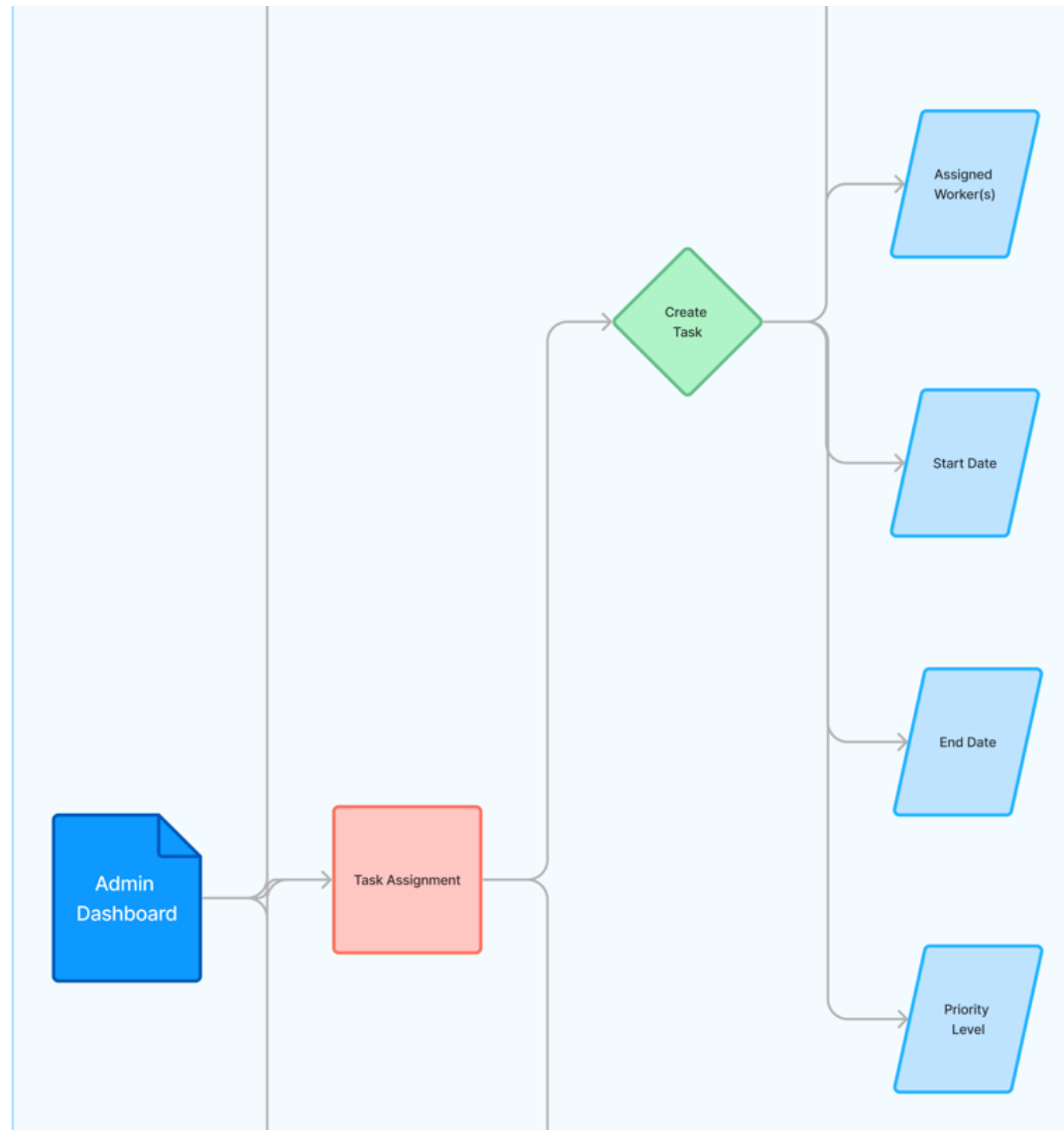
Root Cause Analysis (RCA)

1. Task Assignment: Lack of centralized task management system leads to inefficient assignments.
2. Attendance Monitoring: Manual attendance tracking results in errors and delays.
3. Payment Processing: Manual payment calculations cause inaccuracies and delays.
4. Communication: Absence of a unified communication platform causes disruptions.
5. Data Management: Disparate record-keeping systems lead to information accessibility issues.

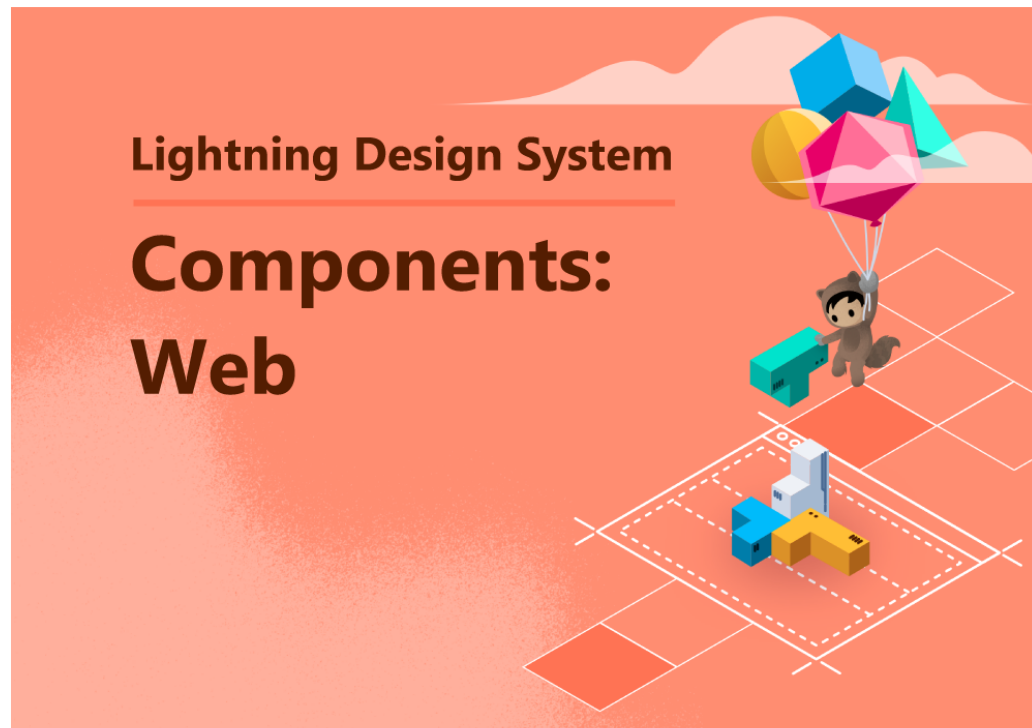


USER FLOW - [https://www.figma.com/board/4qvjikmmVrEPLRDv1KTgtN/WireGen---AI-GPT-wireframe-generation-\(Community\)?node-id=0-1&t=tvOwnyJXdqKaQ4Ah-0](https://www.figma.com/board/4qvjikmmVrEPLRDv1KTgtN/WireGen---AI-GPT-wireframe-generation-(Community)?node-id=0-1&t=tvOwnyJXdqKaQ4Ah-0)

For Detailed Diagram check the above link



Salesforce Lightning Design System



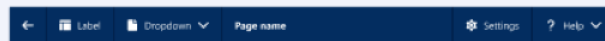
SLDS Official Link –

<https://www.figma.com/community/file/854593583696357016>

Builder Header

Base

Default



With Toolbar



Salesforce Lightning Design System

BREADCRUMB

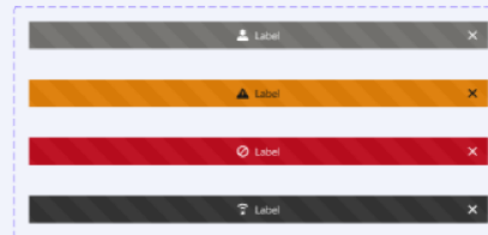
Link Label > Link Label
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Salesforce Lightning Design System

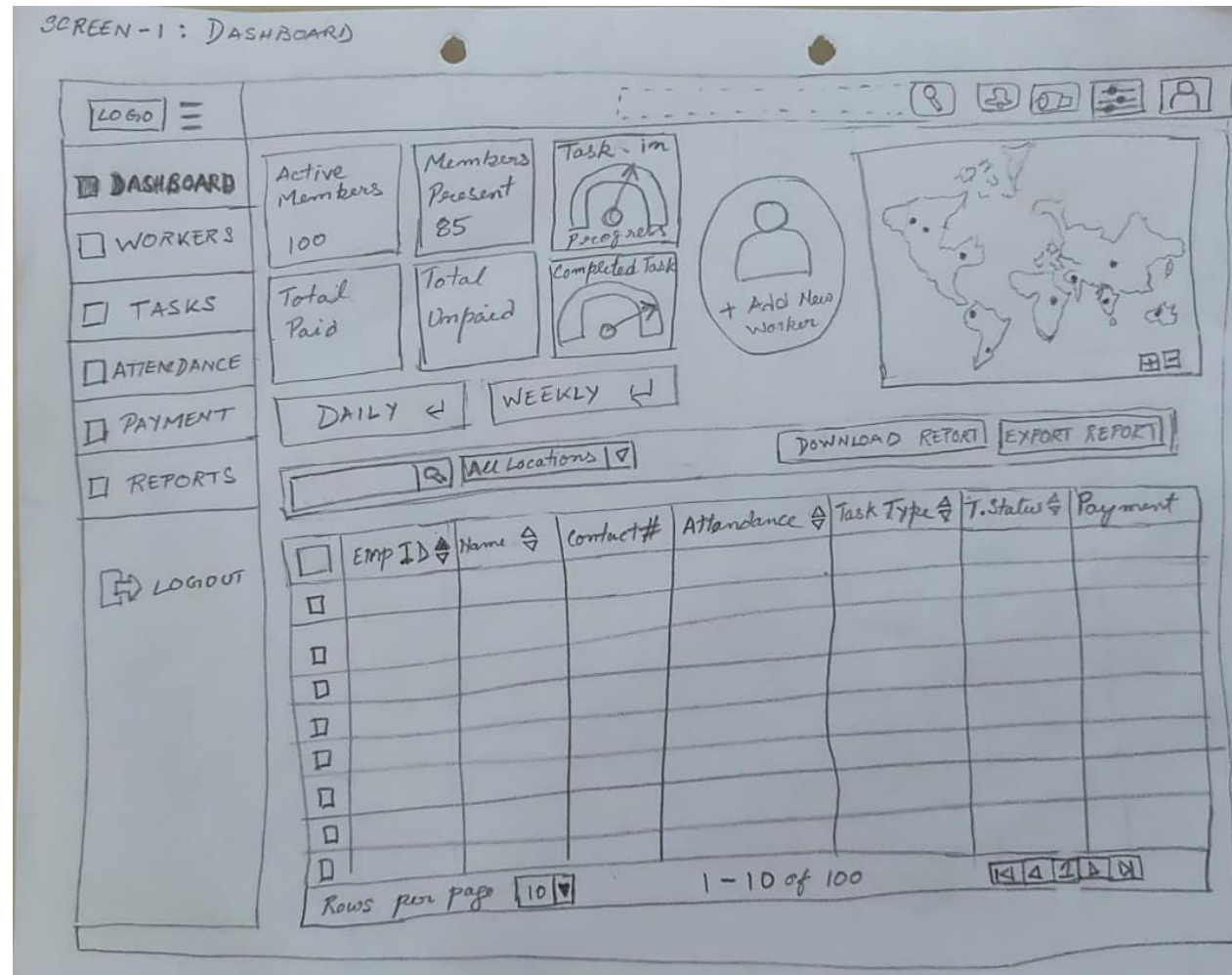
ALERT



Salesforce Lightning Design System

ACCORDION

Wireframes



SCREEN-2: WORKERS

ADD WORKER

VIEW WORKER

LOGO



...

Same Header UI Elements

...

DASHBOARD

WORKERS

TASK

ATTENDANCE

PAYMENT

REPORTS

LOGOUT

Tab 1

Add New Worker

View Existing Worker

First Name

Last Name

Date of Joining



Mobile Number

Skill: Plumber



Add Photo

Employment Type ☐ Permanent ☐ Contractual
Wages Type ☐ Daily ☐ Weekly

ADD

CANCEL

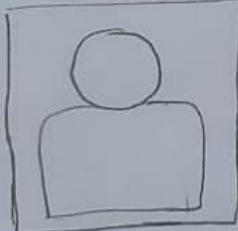
CLEAR FORM

Tab 2

Add New Worker

View Existing Worker

EDIT / SAVE



Full Name
Employee ID
Phone Number

SITE LOCATION

LOCATION - 1

TEAM

Indoor Worker

EMPLOYMENT TYPE

☒ Permanent ☐ Contract

WAGE TYPE

☐ Daily ☒ Weekly

DATE OF JOINING

11-12-2023

Read only

CURRENT STATUS

Task completed - AVAILABLE

ATTENDANCE REPORT (Days)

TOTAL	PAID LEAVE	SPECIAL LEAVE
182	4	1

PAYMENT
DONE/PENDING

MAKE
PAYMENT

SCREEN-4 : ATTENDANCE

LOGO

DASHBOARD

WORKERS

TASKS

ATTENDANCE

PAYMENT

REPORTS

LOGOUT

... Same Header UI Elements ...

ATTENDANCE MANAGEMENT

DATE RANGE

Last 7 days

FILTER BY

Workers



ABSENT - 156

LEAVE - 25

LATE - 14

EXPORT

PRINT

	Name	EmpID	Role	Site	Check In	Check Out	Remarks
<input type="checkbox"/>							
<input type="checkbox"/>							
<input type="checkbox"/>							

Pagination



High Absenteesim at Site B in Last 7 Days.

SCREEN: 5 - Payment

LOGO

DASHBOARD

WORKERS

TASKS

ATTENDANCE

PAYMENT

REPORTS

LOGOUT

000

Same Header UI Elements

000

PAYMENT

Pending Payments

WORKER 276

PAY

WORKER 718

PAY

WORKER 1333

PAY

WORKER 1521

PAY

WORKER 1996

PAY

Generate Invoice

WAGE TYPE:

Daily

Weekly

Site B

Make Payment

Name

NAME

EMPLOYEE ID

MOBILE No: XXXXX XXX

WAGES TYPE:

Daily

Weekly

WAGES

₹ 650

/ Day

Payment Mode:

Online Banking

VERIFY & PAY

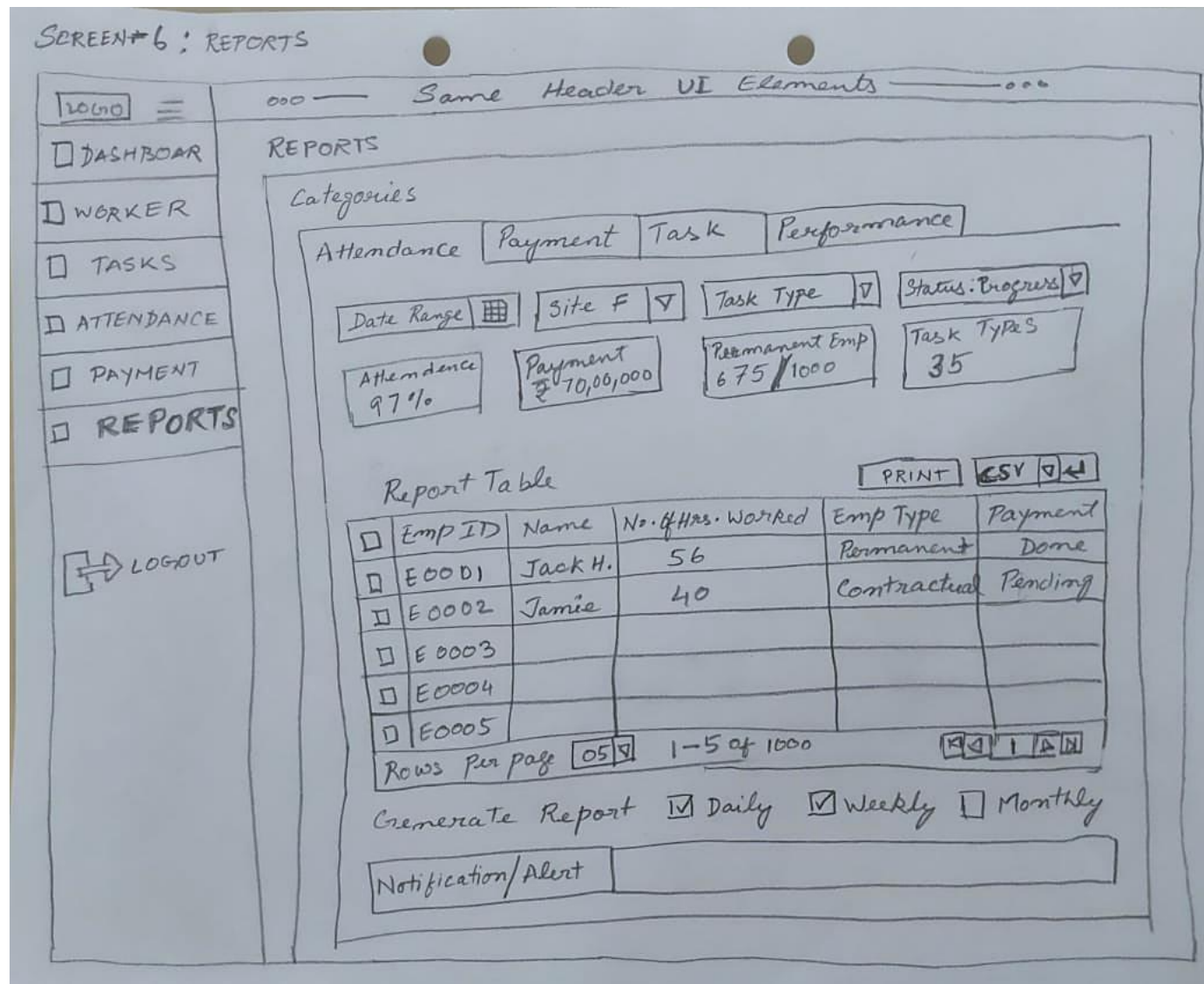
Generate Invoice

Worker Details verified!

Payment Done

* If details not verified, Payment Declined. Alert sent to the employee & Admin

* If Payment done, "Generate Invoice" button is activated.



Actual Prototype Screens - <https://www.figma.com/proto/riOT0k5aL0TR6hoDDTOvsk/ABC-Construction-Company?node-id=17-69239&t=YFr0Cp7abuZSGv-0&scaling=contain&page-id=0%3A1>

ABC Constructions

Dashboard

Workers

Tasks

Attendance

Payment

Reports

Harrison J.

Search

DASHBOARD

Active Workers

100

Workers Present

85

Tasks In Progress

28

vs 34 Tasks

Add New Worker

Total Workers Paid

70

Unpaid Workers

15

Completed Tasks

Finish Pending Payments

SITE F

415 Mission St, San Francisco, CA 94105, USA

View larger map

Daily

Weekly

Search By Employee ID

Location: Site F

Download Report

Export Report as .CSV

	Employee ID	Full Name	Caller Number	Attendance	Date of Joining	Task Type	Task Status	Payment Status
1	<input type="checkbox"/> ABC-00000341-F	Christopher Larken	+16505263248	Full Day	03/23/2018, 11:28 AM	Carpenter	Completed	Done
2	<input type="checkbox"/> ABC-00000342-F	Sarah F	+14159874136	Full Day	03/30/2021, 11:28 AM	Electrician	In Progress	Done
3	<input type="checkbox"/> ABC-00000343-F	Benjamin DeCurtis	+14078167830	Full Day	01/01/2020, 11:28 AM	Brick Mason	In Progress	Done
4	<input type="checkbox"/> ABC-00000344-F	Shawn Brockman	+14156223458	Full Day	11/15/2019, 11:28 AM	Plumber	In Progress	Done
5	<input type="checkbox"/> ABC-00000345-F	Varol Z	+18891724863	Half Day	01/01/2020, 11:28 AM	Painter	Completed	Done
6	<input type="checkbox"/> ABC-00000346-F	Joe Parker	+16505263248	Sick Leave	03/30/2021, 11:28 AM	Cement Mason	Completed	Done
7	<input type="checkbox"/> ABC-00000347-F	Fredric Richard	+13214773255	Full Day	11/15/2016, 11:28 AM	Carpenter	Completed	Done
8	<input type="checkbox"/> ABC-00000348-F	Subu Lawson	+16505262489	Half Day	06/01/2021, 11:28 AM	Brick Mason	In Progress	Payment Pending
9	<input type="checkbox"/> ABC-00000349-F	Brien Matthew	+14156223455	Full Day	12/25/2020, 11:28 AM	Cement Mason	Completed	Done
10	<input type="checkbox"/> ABC-00000350-F	Robin Velarde	+16505263248	Full Day	10/15/2019, 11:28 AM	Electrician	In Progress	Done

Rows per Page 1 1-10 of 100 << < 01 > >>

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Screen 2 – Worker

ABC Constructions

Dashboard


Workers

Tasks


Attendance

Payment




Reports



Harrison J.



Search



WORKERS


Add New Worker

View Existing Worker

FIRST NAME


LAST NAME

DATE OF JOINING



MOBILE NUMBER

TASK TYPE (SKILL)



EMPLOYMENT TYPE:


☐ Permanent


☐ Contractual

WAGES TYPE:

☐ Daily

☐ Weekly



 Upload Photo

CLEAR FORM

ADD

CANCEL

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Screen 3 – TASKS

ABC

Constructions

Dashboard

Workers

Tasks

Attendance

Payment

Reports

Harrison J.

Search

TASKS

Task Description

In Progress

Task Type

Electrician

Cement Mason

Iron Worker

DESCRIPTION

The Electrician's job responsibilities include the following

- Electrical System Installation
- ...
- ...
- ...
- ...
- ...
- ...

START DATE

02/03/2024

TASK DURATION

6 Months

END DATE

06/03/2024

NUMBER OF WORKERS ENGAGED

22

OK

Assign Task

TASK TYPE (SKILL)

DESCRIPTION

TASK PRIORITY :

Low

Medium

HIGH

CRUCIAL

ASSIGN TO

START DATE

END DATE

ESTIMATED DURATION

Work duration - Hours per Day

8

☐ Notify Worker

☐ Set Reminder

☒ Log Attendance & Activity

START DATE

CLEAR FORM

ADD

CANCEL

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Screen 4 – ATTENDANCE

ABC Constructions

Dashboard

Workers

Tasks

Attendance

Payment

Reports

Harrison J.

Search

PAYMENT

Search By Employee Name

Worker 386

Pay Now

Worker 272

Pay Now

Worker 630

Pay Now

Worker 597

Pay Now

Worker 685

Pay Now

Worker 778

Pay Now

Generate Invoice

WAGES TYPE:

Daily

Weekly

SITE LOCATION

Site G

Make New Payment

Search By Employee Name

FIRST NAME

Shawn

LAST NAME

Brockman

EMPLOYEE ID

ABC-000000344-F

MOBILE NUMBER

+14156223458

WAGES TYPE:

Daily

Weekly

Monthly

WAGES

\$ 35

/ Day

PATMENT MODE

Online Banking

GENERATE INVOICE

VERIFY & PAY

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Screen 6 – Reports



Harrison J.



WORKERS

Attendance
Payment
Tasks
Performance

ATTENDANCE

12/15/2023



SITE LOCATION

Site - A

TASK TYPE (SKILL)

Mason

TASK STATUS

Completed

Total Attendance

97%



Total Payment Done

\$ 47900



Permanent Employees

77 / 121



Task Types (Skills)

35



	Employee ID	Full Name	Caller Number	Attendance	Date of Joining	Task Type	Task Status	Payment Status	
1	<input type="checkbox"/> ABC-000000341-F	Christopher Larken	+16505263248	Full Day	03/23/2018, 11:28 AM	Carpenter	Completed	Done	<input type="checkbox"/>
2	<input type="checkbox"/> ABC-000000342-F	Sarah F	+14159874136	Full Day	03/30/2021, 11:28 AM	Electrician	In Progress	Done	<input type="checkbox"/>
3	<input type="checkbox"/> ABC-000000343-F	Benjamin DeCurtis	+14078167830	Full Day	01/01/2020, 11:28 AM	Brick Mason	In Progress	Done	<input type="checkbox"/>
4	<input type="checkbox"/> ABC-000000344-F	Shawn Brockman	+14156223458	Full Day	11/15/2019, 11:28 AM	Plumber	In Progress	Done	<input type="checkbox"/>
5	<input type="checkbox"/> ABC-000000345-F	Varol Z	+18891724863	Half Day	01/01/2020, 11:28 AM	Painter	Completed	Done	<input type="checkbox"/>
6	<input type="checkbox"/> ABC-000000346-F	Joe Parker	+16505263248	Sick Leave	03/30/2021, 11:28 AM	Cement Mason	Completed	Done	<input type="checkbox"/>
7	<input type="checkbox"/> ABC-000000347-F	Fredric Richard	+13214773255	Full Day	11/15/2016, 11:28 AM	Carpenter	Completed	Done	<input type="checkbox"/>
8	<input type="checkbox"/> ABC-000000348-F	Subu Lawson	+16505262489	Half Day	06/01/2021, 11:28 AM	Brick Mason	In Progress	Payment Pending	<input type="checkbox"/>
9	<input type="checkbox"/> ABC-000000349-F	Brien Matthew	+14156223455	Full Day	12/25/2020, 11:28 AM	Cement Mason	Completed	Done	<input type="checkbox"/>
10	<input type="checkbox"/> ABC-000000350-F	Robin Velarde	+16505263248	Full Day	10/15/2019, 11:28 AM	Electrician	In Progress	Done	<input type="checkbox"/>

Rows per Page

1

1-10 of 100

<< < 01 > >>



All the Task Types In Progress !

GENERATE REPORTS :



Notify Worker



Set Reminder



Log Attendance & Activity