Casual Labour Job Finder

Agenda : Release 2

Date : 26-04-2023

Team Members :

Aditya Acharya

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Sai Nikhita Obbineni

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Motivation

- Most online job portals cater to white collar jobs. The few that cater to blue collar jobs suffer from either of these or some combination of these issues -
  - Too technologically complex for the average blue collar worker to understand and use effectively
  - available only in major languages like English.
- For employers looking to hire local semi-skilled blue collar workers, it is extremely tedious and difficult for them to get interested blue collar workers

Objective

- Simplify the process of job search for both job seekers and employers by
  - providing a toll-free number for job seekers to enquire about current vacancies in their vernacular and
  - allowing job posters to post current vacancies available

Objectives

The primary objective of the Casual Labour Job Finder is to provide an accessible platform for blue-collar job seekers to find suitable employment opportunities, and for employers to hire semi-skilled blue-collar workers without much hassle.

- To create a job portal that is user-friendly and easy to use for blue-collar job posters
- To overcome the language barrier by providing a toll-free number for job seekers to enquire about job vacancies in their vernacular
- To simplify the process of job posting for employers seeking to hire blue-collar workers
- To improve the overall employment rate among blue-collar workers by providing access to better job opportunities

Rescoping for R2

Our project involved building a phone number pipeline, which the user can interact with. For this, we required an IVR, which is a licensed software.
Due to various delays from the client side, the client was unable to provide us with the required IVR.
Because of this, the client asked us to make a minimalistic UI app pipeline instead of the originally intended IVR pipeline.
We have thus, made a UI app integrated with the pipeline, which suffices the client's need and is the alternative till we are provided with the licensed IVR

Timeline

Duration	Task
25-01-23 to 08-02-23	Project Concept & Understanding
09-02-2023 to 22-02-23	UI Screens & User Stories
23-02-23 to 09-03-23	UI Screens & Database Schema
10-03-23 to 30-03-23	User Research & Frontend Development
31-03-23 - EOP	Backend & Vernacular Pipeline

Milestones

Milestone	Release Schedule	Status	Deliverable
User Stories & UI Screens	R1	Completed	YES
Job & User Management	R1	Completed	YES
Vernacular Pipeline	R2	Completed	YES
Customer Support	R2	Incomplete	YES

Completed and Pending Tasks

Serial Number	Task	Sprint Number	Status
1	Job Poster Registration	4	Completed
2	Posting a New Job	4	Completed
3	Job Poster Login	4	Completed
4	Manage Account	4	Completed
5	Job Seeker Contact for Job	4	Pending
6	Manage Previously Posted Jobs	5	Completed

Continued

Serial Number	Task	Sprint Number	Status
7	Manage Job Responses	5	Completed
8	Vernacular Call Audio Interact	6	Pending
9	Vernacular English Translation	6	Completed
10	English Machine Query Translation	7	Completed
11	Query Processing	7	Completed
12	Response Recording	7	Pending

Continued

Serial Number	Task	Sprint Number	Status
13	Job Seeker Feedback	8	Pending
14	Job Poster Feedback	8	Pending

Progress Made From R1

1. Frontend:
    1. Frontend made more responsive.
    2. Frontend UI made more appealing.
    3. Frontend changed with respect to backend(writing queries and displaying results)
2. Backend:
    1. Made the backend for signup and login
    2. Made the backend for posting a new job
    3. Made the backend for displaying job
    4. Made the backend for editing job
    5. Made the backend for viewing responses
    6. Made the backend for editing profile

Continued

3. Pipeline:
    1. Made python file, which uses client API to automatically recognise speech and convert to text
    2. Made python file, which uses client API to translate from 1 language to another
    3. Made python file, which uses client API to read the text into speech
    4. Made the python file, which uses the all the above for processing a vernacular query and returning its output
    5. Made a minimalistic UI app to integrate and run pipeline

Continued

4. Discarded Work

1. Made nodeJS file, which could convert speech to text. Had to be discarded because of faulty api and changed to python because of lack of documentation.
2. Made nodeJS file, which could convert text to speech. Had to be discarded because of faulty api and changed to python because of lack of documentation.
3. Made python file, which could generate url of audio file by uploading them to s3. Had to be discarded as free s3 such as play.min.io turned out to be unreliable.

Development Environment / Tech Stack

- For Design:
  - Figma : The team uses Figma for designing and collaborating on designs. It is also used to visualise the website.
- For Development:
  - Development Environment:
  - Visual Studio Code : The team uses Microsoft's Visual Studio Code as anIDE.
  - Programming Languages / Frameworks / Dev Tools:

  React : For frontend development of website.
  Nodejs: For backend development of website.
  HTML: For basic substitute UI app.
  Python : For pipelining
  minIO: For storage and extraction of url of audio files
  MongoDB: For the database of website.
  GraphQL: Backend.
- Version Control:

  Version Control System : The team uses 'git' as a version control system.
- For Documentation:

  Google Docs : The team uses Google Documents for documentation and collaboration on documents
- For Repository:

  GitLab: The team uses GitLab as a repository for the code and documentation of the project.

User Research

Mr Debanjan Ghoshal

- Kadamba Mess Manager (Job Poster)

(Did not prefer to have his photo clicked)

Discussion points :

1. The UI needs to be a bit more descriptive. Most names of options were a little bit ambiguous and required a little bit of explanation to understand. Also use simpler terms
2. Job deletion and job completion are two separate actions. Job deletion includes deleting the job both from the user's account as well as the database. Job completion includes deletion of the job from the user's account but not from the database (It indicates all vacancies were successfully fulfilled)
3. A salary range / value field is needed in the job details
4. The user had a little difficulty navigating through the website. We had to explain a few points.
5. Jobs that are permanent v/s temporary are 2 different kinds and would require slightly different details.
6. The website needs to be a little more interactive & lively.
7. There might arise a need for multiple locations for a single job.
8. A branding page is required so ensure trust in the website.
9. Introduce a field called role. This would be separate from tags
10. Even if something of this sort gets launched, how will job seekers get to know about the toll-free-number

User Research

Mr Krishna Thakur

- Works at Kadamba Mess (Job Seeker)

Discussion Points :

1. The main things that should get clarified before one would make a choice should be salary, daily work duration and location
2. If its a multi-person job i.e if it requires interacting with other people, they also should preferably know a common language
3. Even if something of this sort gets launched, how will people like us come to know about the toll-free-number

User Research

Mr Krishna Kishore

- Hostel Manager Bakul (Job Poster)

Discussion points :

1. Each job seeker that shows interest should have a unique id associated with him/her. Makes it easier to search him/her.
2. The job seeker details should be a little more in depth. Eg : field of experience of the job seeker, location etc.

User Research

Anonymous

- Cleans washrooms at Bakul (Job Seeker)

(Preferred not to be named nor have a picture clicked)

Discussion Points :

1. If the job includes something that we currently do not know, the skill can be easily learnt and then they can work.
2. They directly do not deal with the jobs, their supervisor tells them about the vacancies

User Research

- **Rajamani (Security Parijat)**
- (Job Seeker)

Video Link :
https://drive.google.com/file/d/1nDJX8aPYyaayb8vnzxQst7VeIKMbd02D/view?usp=share_link

Video Points :

1. We generally call or directly meet with Sir/Ma'am, discuss without fail the number of days, daily wage, daily hours & timings and how many other people will work with me.
2. The product seems beneficial since it is helping us find new jobs.
3. Newspapers are generally our source for finding new jobs

Challenges faced in project:

1. Lack of proper resources
    1. Lack of good APIs: The APIs provided were faulty and unreliable. Their accuracy was bad and would give an error on the same code. The server would fail.
    2. Lack of IVR: Initially, an IVR, which is essential for toll-contact, was to be provided. But it still hasn't been provided by the client. We had to switch to UI app at the end as an alternative.
    3. Lack of s3: free s3 are unreliable. A good, licensed s3 wasn't provided by the client.
    4. Lack of documentation: There was a lack of documentation of the resources which were provided even. We had to contact them several times, thus slowing down the process.

Continued

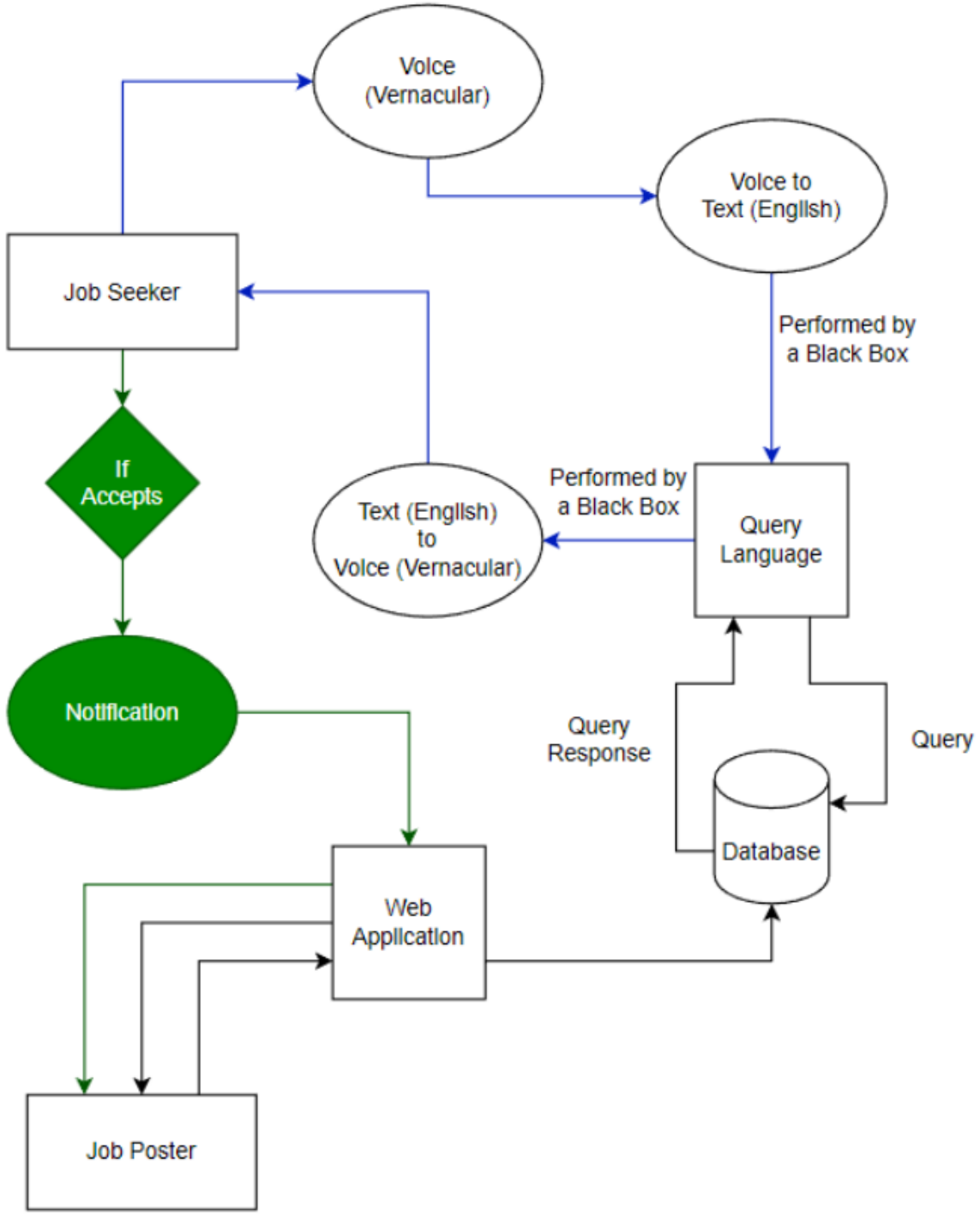
2. Lack of work force: We lacked a team member, which demanded more workload.

3. New Technologies: We had to use graphQL for backend, undocumented external APIs, minIO, IVR .etc. which took some time getting accustomed to.

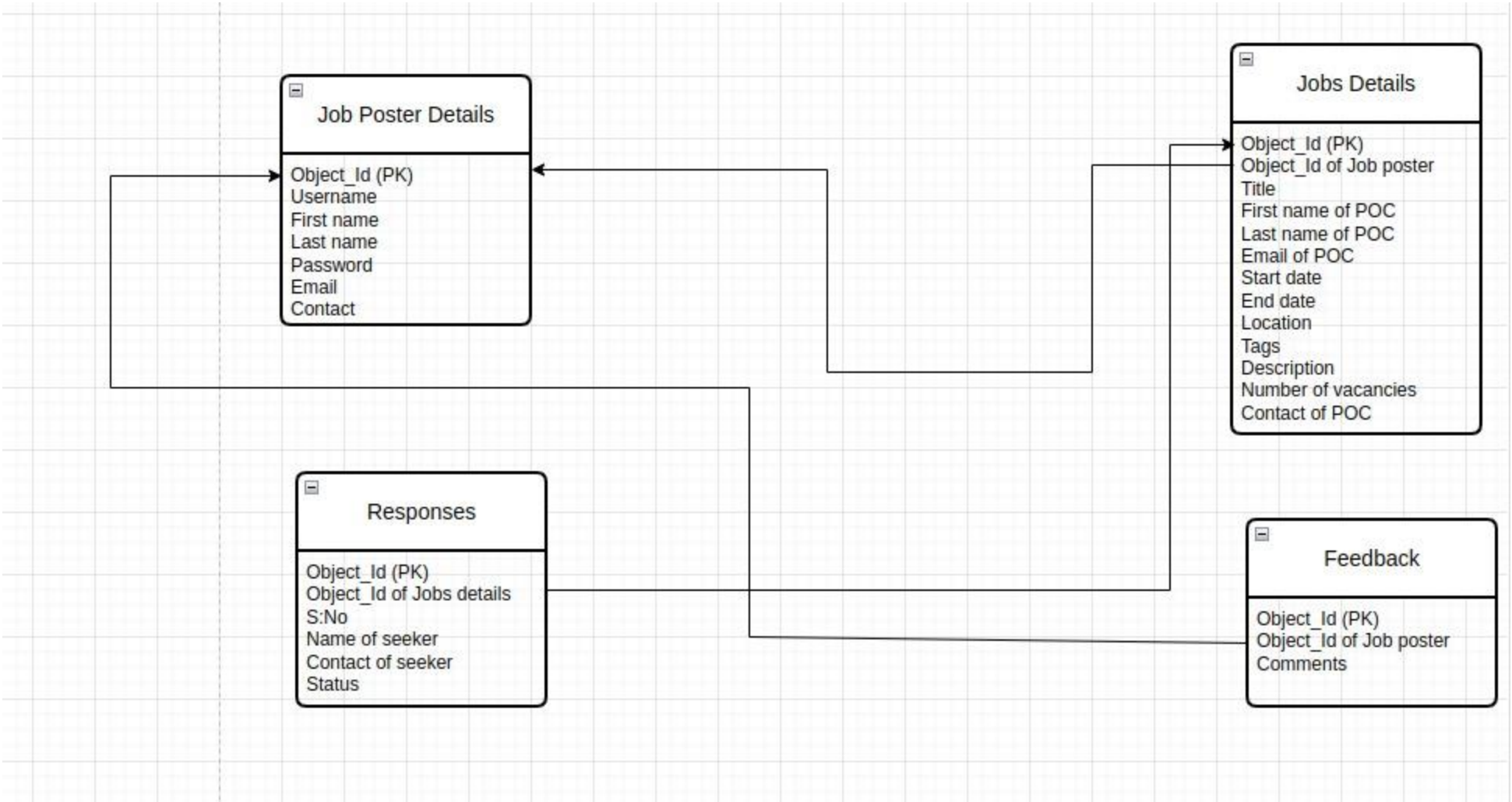
4. Merging Conflicts: Due to various changes by different users, we faced difficulty in merging changes.

5. Discarding Work: We often had to discard work, which lead to loss of time and effort. The reasons were mostly lack of communication between client and team and unreliable technologies.

Project Concept



DB Schema


Job Poster Details
Object_Id (PK)
Username
First name
Last name
Password
Email
Contact
Jobs Details
Object_Id (PK)
Object_Id of Job poster
Title
First name of POC
Last name of POC
Email of POC
Start date
End date
Location
Tags
Description
Number of vacancies
Contact of POC
Responses
Object_Id (PK)
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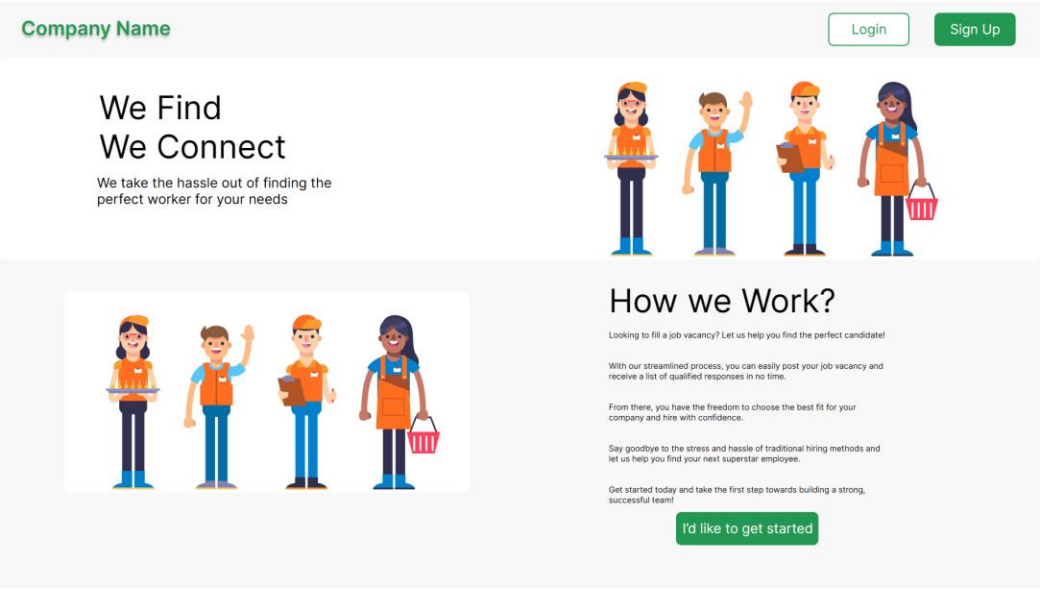
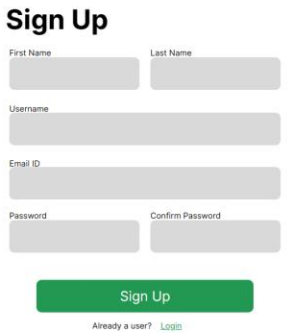
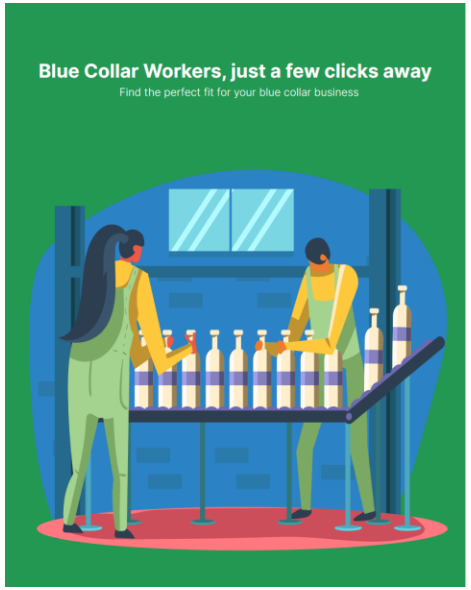
Comments

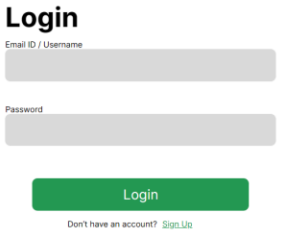
UI Screens


Company Name
Login
Sign Up
We Find
We Connect
We take the hassle out of finding the perfect worker for your needs
How we Work?
Looking to fill a job vacancy? Let us help you find the perfect candidate!
With our streamlined process, you can easily post your job vacancy and receive a list of qualified responses in no time.
From there, you have the freedom to choose the best fit for your company and hire with confidence.
Say goodbye to the stress and hassle of traditional hiring methods and let us help you find your next superstar employee.
Get started today and take the first step towards building a strong, successful team!
I'd like to get started

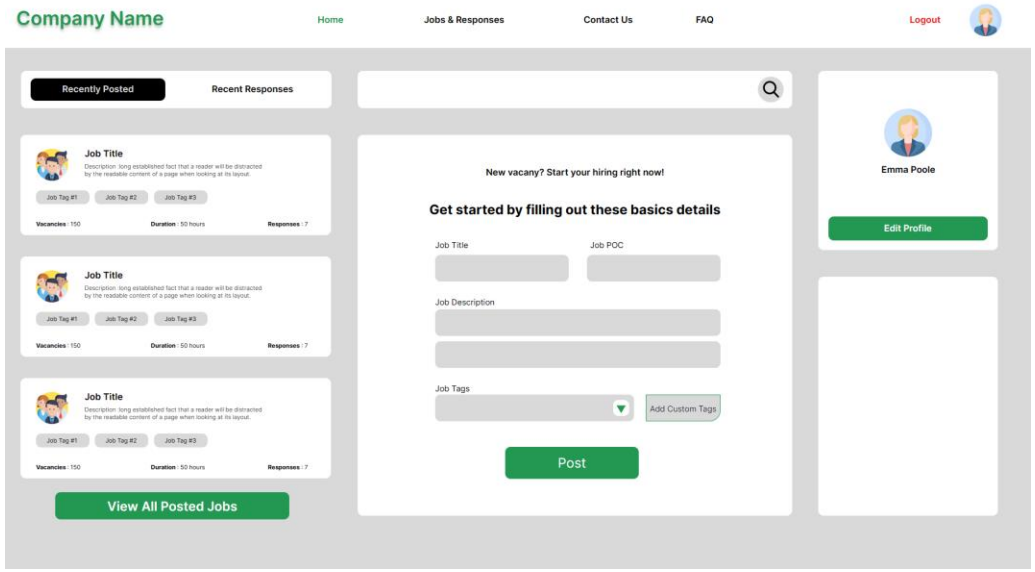
Connect with a diverse pool of the best skilled workers in the market
Join a growing community of blue collar workers and employers, dedicated to quality work, grit and determination


Sign Up
First Name
Last Name
Username
Email ID
Password
Confirm Password
Sign Up
Already a user? Login


Blue Collar Workers, just a few clicks away
Find the perfect fit for your blue collar business


Login
Email ID / Username
Password
Login
Don't have an account? Sign Up

UI Screens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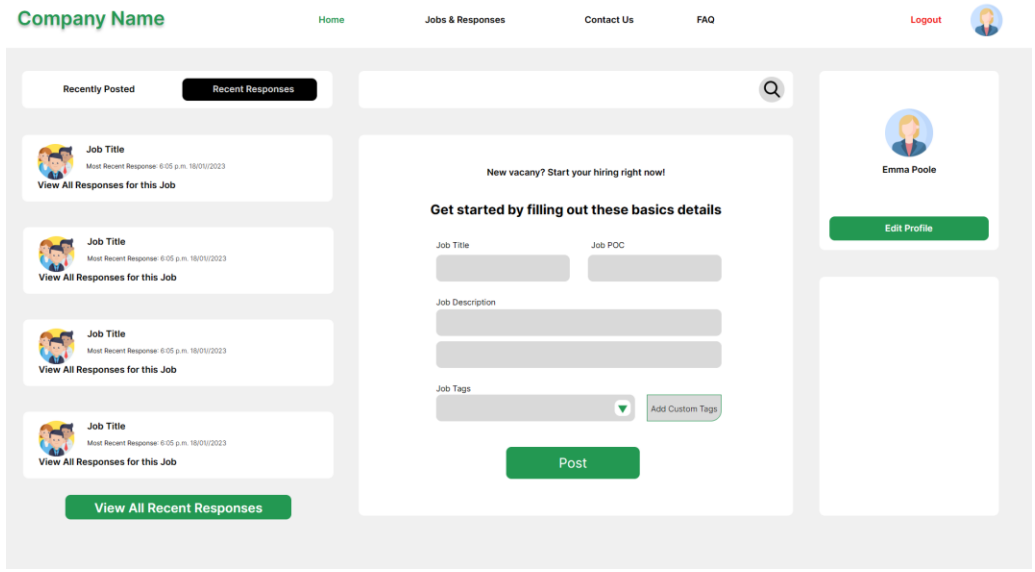
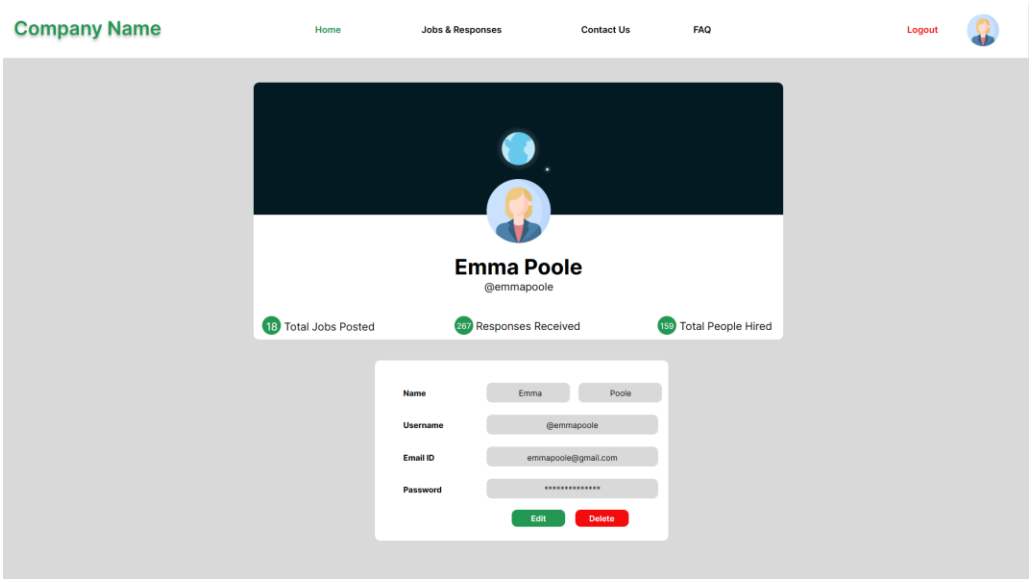
Home
Jobs & Responses
Contact Us
FAQ
Logout
Recently Posted
Recent Responses
Job Title
Job Tag #1
Job Tag #2
Job Tag #3
Vacancies : 150
Duration : 50 hours
Responses : 7
View All Posted Jobs
New vacany? Start your hiring right now!
Get started by filling out these basics details
Job Title
Job POC
Job Description
Job Tags
Add Custom Tags
Post
Emma Poole
Edit Profile


Company Name
Home
Jobs & Responses
Contact Us
FAQ
Logout
Recently Posted
Recent Responses
Job Title
Most Recent Response: 6:05 p.m. 18/01/2023
View All Responses for this Job
View All Recent Responses
New vacany? Start your hiring right now!
Get started by filling out these basics details
Job Title
Job POC
Job Description
Job Tags
Add Custom Tags
Post
Emma Poole
Edit Profile


Company Name
Home
Jobs & Responses
Contact Us
FAQ
Logout
Emma Poole
@emmapoole
18 Total Jobs Posted
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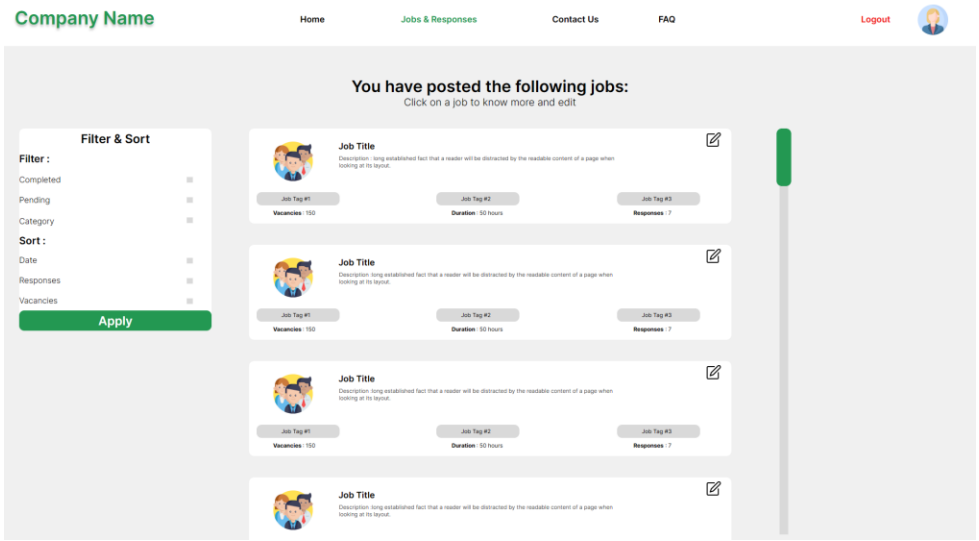
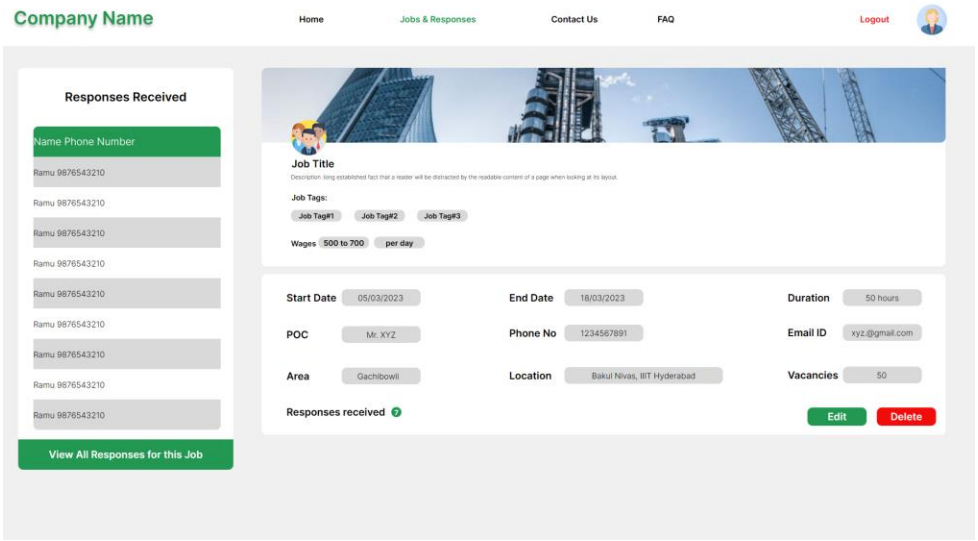
Password
Edit
Delete

UI Screens


Company Name
Home
Jobs & Responses
Contact Us
FAQ
Logout
You have posted the following jobs:
Click on a job to know more and edit
Filter & Sort
Filter :
Completed
Pending
Category
Sort :
Date
Responses
Vacancies
Apply
Job Title
Job Title
Job Title
Job Title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Home
Jobs & Responses
Contact Us
FAQ
Logout
Responses Received
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Ramu 9876543210
View All Responses for this Job
Job Title
Job Tags:
Job Tag#1
Job Tag#2
Job Tag#3
Wages
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per day
Start Date
05/03/2023
End Date
18/03/2023
Duration
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POC
Mr. XYZ
Phone No
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Area
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Bakul Nivas, IIIT Hyderabad
Vacancies
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Edit
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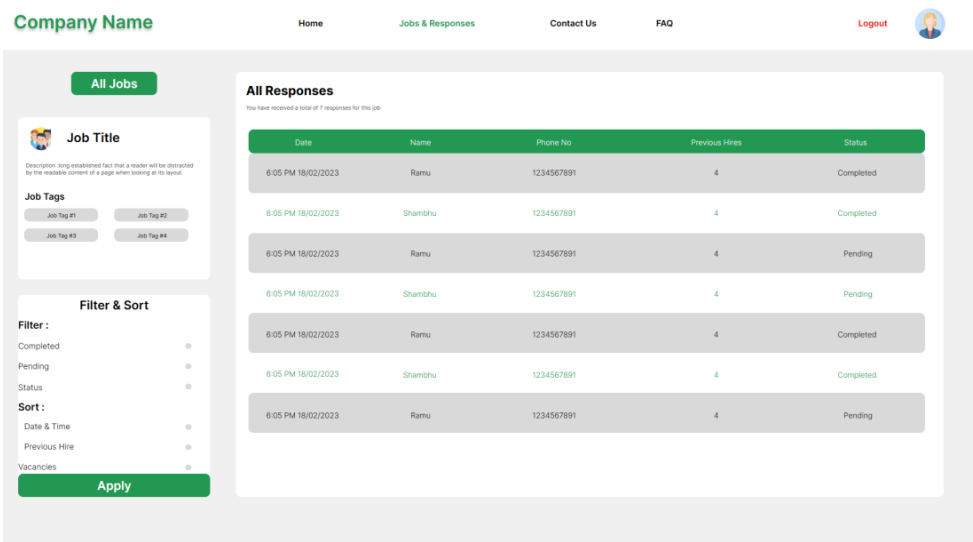
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FAQ
Logout
All Jobs
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Job Tags
Filter & Sort
Filter :
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Sort :
Date & Time
Previous Hire
Vacancies
Apply
All Responses
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Completed
Shambhu
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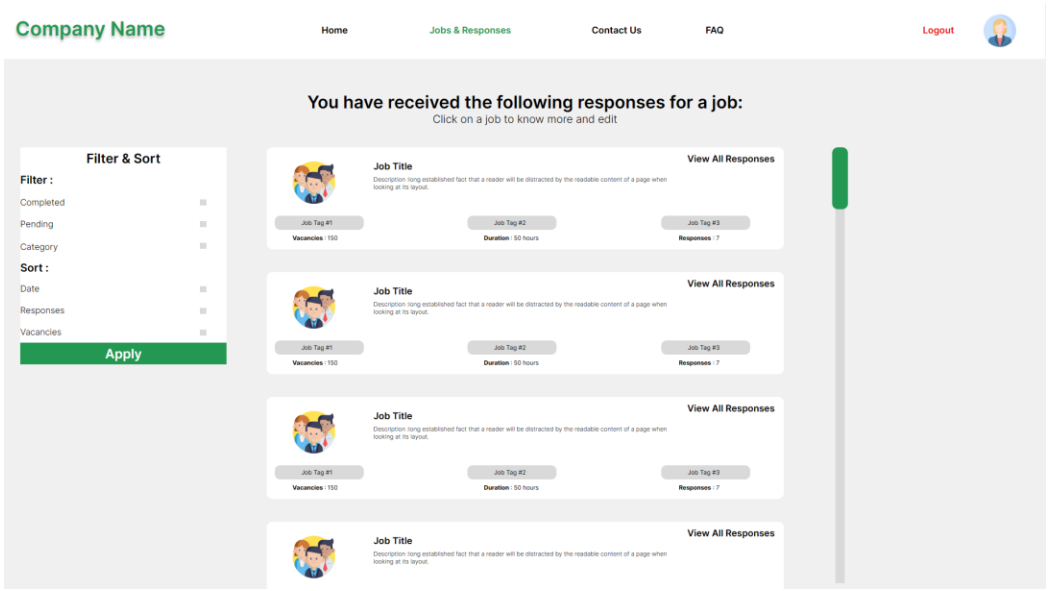
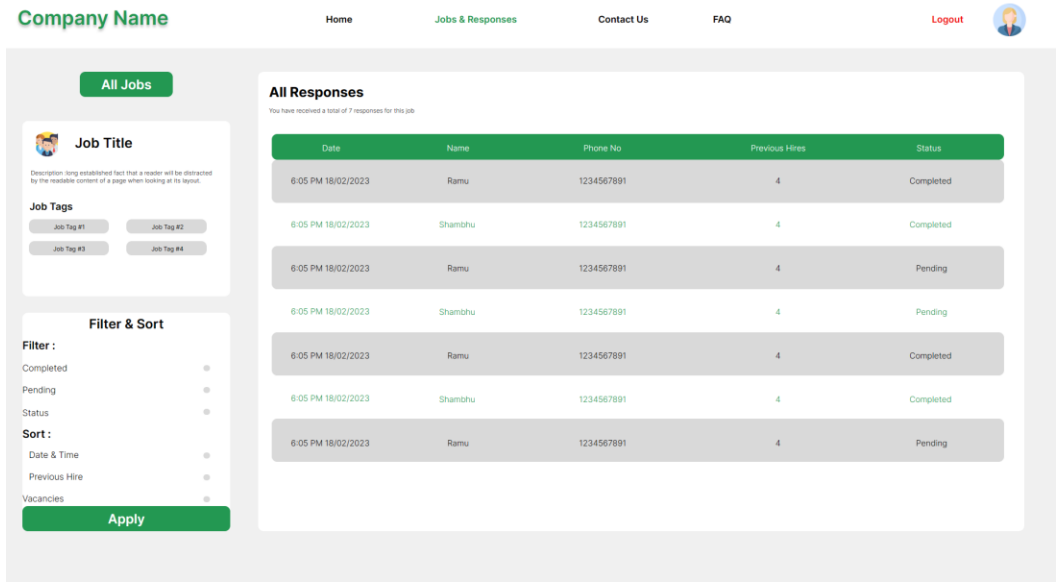
UI Screens


Company Name
Home
Jobs & Responses
Contact Us
FAQ
Logout
You have received the following responses for a job:
Click on a job to know more and edit
Filter & Sort
Filter :
Completed
Pending
Category
Sort :
Date
Responses
Vacancies
Apply
Job Title
View All Responses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Contact Us
FAQ
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All Jobs
Job Title
Job Tags
Filter & Sort
Filter :
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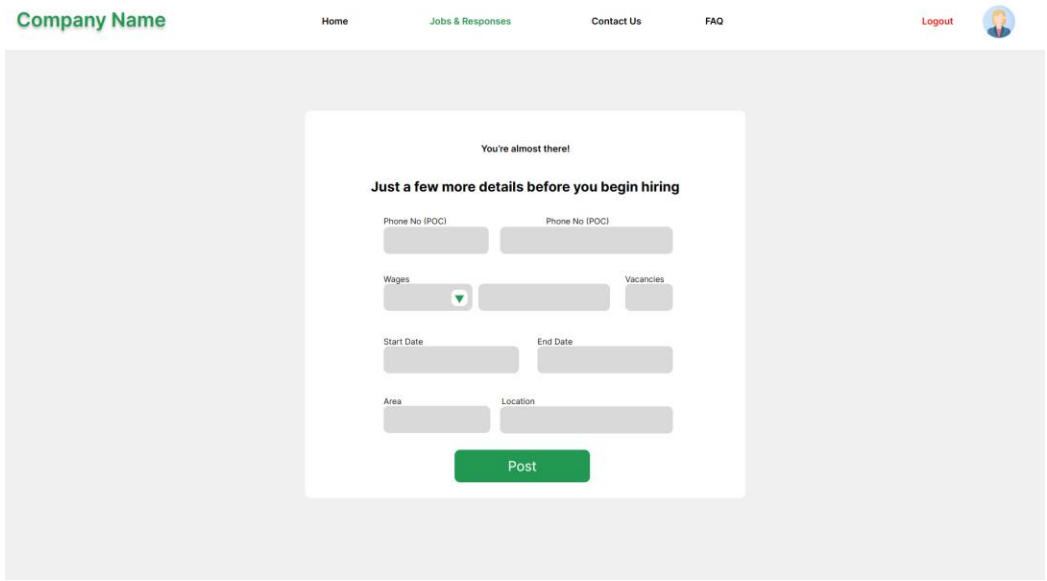
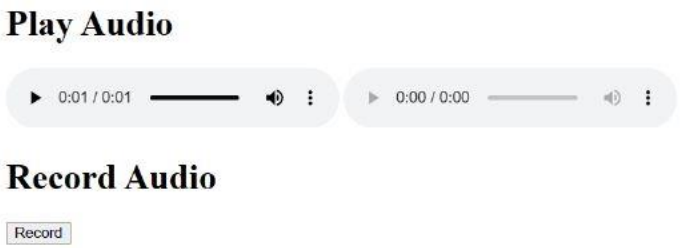
Vacancies
Apply
All Responses
Date
Name
Phone No
Previous Hires
Status


Company Name
Home
Jobs & Responses
Contact Us
FAQ
Logout
You're almost there!
Just a few more details before you begin hiring
Phone No (POC)
Phone No (POC)
Wages
Vacancies
Start Date
End Date
Area
Location
Post

Minimalistic UI app alternative



Project Modules

1. User Management (R1)

a. Job Poster

   i. Job Poster Registration

   ii. Job Poster Login

   iii. Manage account

b. Job Seeker

2. Jobs (R1)

a. Posting new job

b. Manage previously posted job

c. Manage job responses

Project Modules

3. Pipeline (R2)
a. Vernacular Audio Interaction
   i. Audio Play Module
   ii. Audio Record Module
b. Vernacular - English Translation
c. English - Machine Query Translation
d. Query Processing and Response
   i. English to Machine Query Translation
   ii. Query Processing
   iii. Machine Query Response to English Translation
e. Response Recording
4. Customer Support (R2)
a. Feedback
b. FAQ