User description

1. Client
   1. safety manager -
   2. security manager
   3. safety officers
   4. owner of location/room/space
   5. Owner of work
   6. security guards – access points
2. Contractor
3. Admin – Infinity

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Access level | Registration | Approval | Apply work | Status Applications | Work status | Others work in progress status |
| Safety manager | x | x |  | x | x | x |
| Security manager | x | x |  | x | x | x |
| Safety officers | x | x |  | x | x | x |
| Owner location/space | x | x |  | x | x | x |
| Owner of work (coordinator of work) | x | x |  | x | x | x |
|  |  |  |  |  |  |  |
| Contractors | x |  | x | x | x |  |
|  |  |  |  |  |  |  |

Dashboard should be different for client and contractor.

Overall user hierarchy.

Since this is a cloud web app, we plan to deploy the system for all our clients. Each client will be registered under their respective company name as below.

**Module 01**

Contractors’ registration will be done by admin user; once the registration is successful, an email will be sent to the registered account to complete the registration.

Step 1 Input:

1. Name
2. Company
3. Age
4. Identification card number
5. License number
6. passport (if foreigners)
7. safety green card issued by government
8. Position in company

Step 2:

Watching safety induction video

(video will be uploaded by admin)

Step 3:

Quiz – Questions uploaded by power user

Step 4:

Result – pass or fail

If passed, can proceed for permit to work application

If failed, need to go to step 2 again.

The contractor’s individual record will be grouped according to company. Every individual MUST go through the induction and passed.

**Module 01 process flow**

Fail

**Module 02**

Application for permission to work.

Condition 1:

Applicants must be registered and passed the safety inductions and must be supervisor and above level and the date of applications must be 3 days earlier than date of entry.

Step 1

Filling up the Job Safety Assessment/Analysis (JSA)

Risk Assessment

Method of Statement

Permit to Work (PTW) with additional GMP permit (if food industry)

Fill up hazardous work permits if any in electronic forms.

* Hot work
* Working at height
* Confined space
* Lifting truck
* Personal declaration form

Step 2

Select list of eligible workers/staff from list (database company) or additional workers without induction

Step 3

Click submission

Step 4

Email sent to client, except security

Step 5

Approval needed from coordinator of work, if rejected go back to Step 1, if succeed go to step 6

Step 6

Approval from security manager

Step 7

Approval from safety & health manager

Step 8

Approval owner of space

Step 6, 7, 8 can be con-current

Condition passed when step 6,7,8 all GO. Email will be sent to contractor regarding status and QR code activated and send to their email. Security guards and guard post will have visibility about the approval from their dashboard.

Condition failed when either 1 of step 6 or 7 or 8 failed. If failed, email will be sent to contractor informing them. Dashboard will show status failed due to xxxxx. Back to step 1, until passed.

Step 9

Approval given to start work

Step 10

Email QR code to contractor for access verifications

Step 11

Security will issue access pass/card/badge

Step 12

Work assessment if high risk

Step 13

Risk assessment validated

Step 14

Work start

Step 15

Work finish

Step 16

Contractor finish work and update system

Step 17

Coordinators validate work close, if not satisfy go to step 16 but if permit expired go to 18. If work validated, process ends and permit expired.

Step 18

Application to extend permit to work date if needed more time

Step 19

Approval from

Security manager, safety and health manager, safety and health officers and space owners, if no approval process ends and permit to work expired.

Step 20

Continue work and go to step 16.

**Process Flow Module 2**

1. Users can create an account

Only admin at Infinity

1. Users can create contractor account

Only client admin can create

1. Users can retrieve lost passwords

Yes

1. Users can change their passwords

Yes

1. Contractors can create new workers

Yes

1. Users can upload new documents

Yes

Sketching the UI

* Navigation
* Branding
* Forms
* Buttons
* Any other interactive elements

Questions for web app

How does a user signup:

Admin will register and assign contractors username (email) and password

Do they receive a verification email

Yes, once admin successfully registered, an email will be send to the contractor’s registered email.

How does a user login

Username and password

How does a user change their password

Via web app

Nodejs as backend language is very scalable, fast and easy to manage. With this you can use Reactjs at frontend which will make application faster. For images, document storage you can use aws or such file storage. For data you can use mongodb or mysql or postgres. Nodejs, reactjs and any one from those 3 db will make perfect match and application, scalable.