Pitch: Cost and Billing Report Feature

Problem:
So far we have created a timesheet application that allows employees to submit timesheets to their supervisors and their clients for approval. However, now we need a way for clients and other users to be able to view data related to costs and billing. This will allow clients to view all the billing information related to all the employees working on their projects. Meanwhile, employees will be able to see all the cost information related to the projects they've worked on.

Clients and employees need a way to easily view their cost or billing information. Without it, it will be very difficult for clients to be able to deal with their finances appropriately and ensure that all the money adds up. The same can be said for employees as well.

Appetite:
The Cost/Billing Report is a very important feature for our client. Having a user friendly, easy to use tool for creating cost and billing reports would make life much easier for their users. Therefore, we will allocate exactly 6 weeks in order to complete this task. This should give us adequate time to complete the feature in its entirety while adhering to the clients demands.

Solution:
A page in the application that allows users to generate a report showing the cost/billing information they are allowed to see according to the parameters that they select. Fields can be filtered so that users can choose what information they want to view. The fields should include: cost rate, billing rate, cost total, billing total, user name, hours worked, task name, project name, client name, client representative name.

Users are categorized as Project Resources, Supervisors, Client Representatives, or Administrators, and have distinct roles and permissions. Users will only be able to see information about their own clients and projects. The information they see when they generate the report will depend on their role. The interface should be easy to use and work efficiently.

Specific roles and permissions

Project Resources: Will be able to see their own hours, projects, hourly cost rates and total costs.

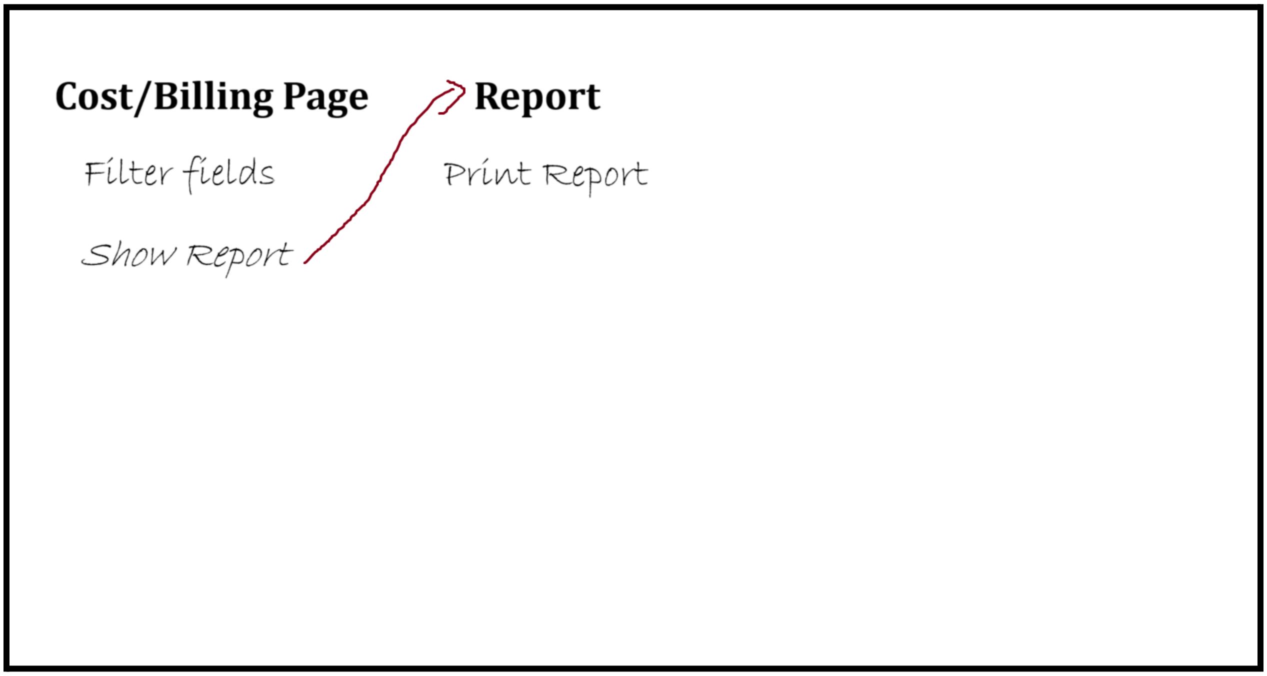
Supervisors: Can also be considered a project resource. Will also be able to see their assigned employees' data.

Clients: Will be able to see their assigned resources data except information related to cost. Instead, they will see the billing rate information associated with the resources.

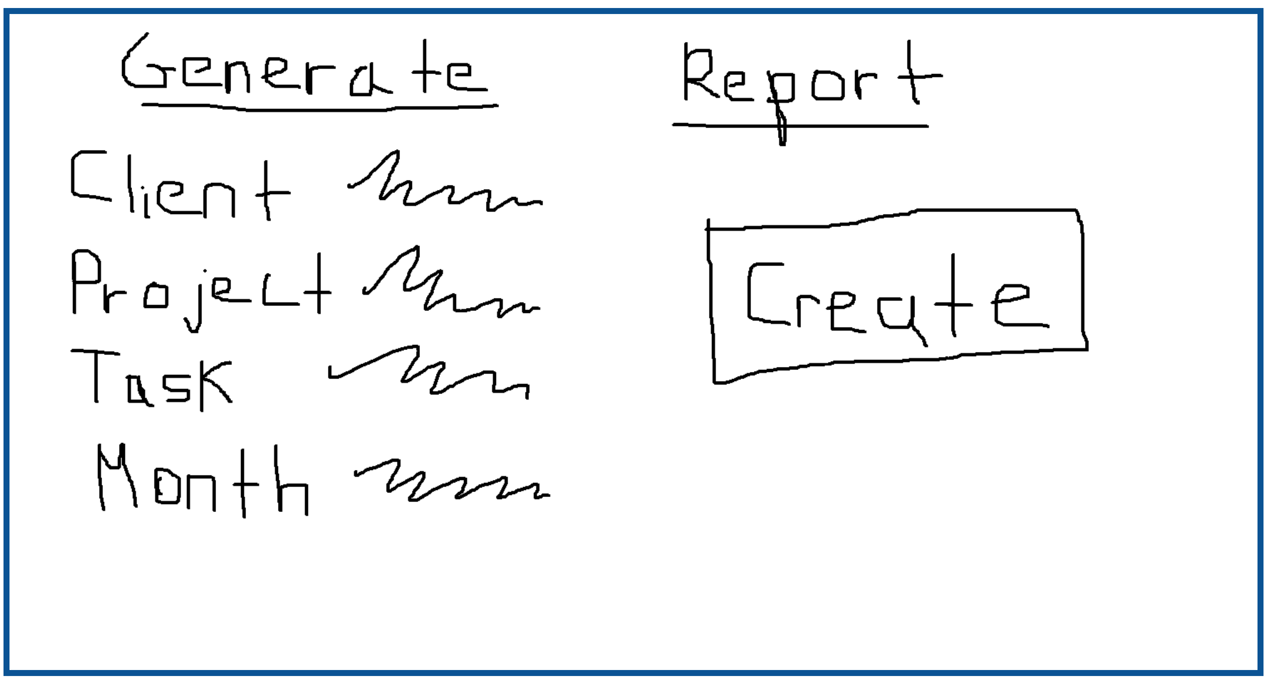
Business Owners: Will be able to see any information.

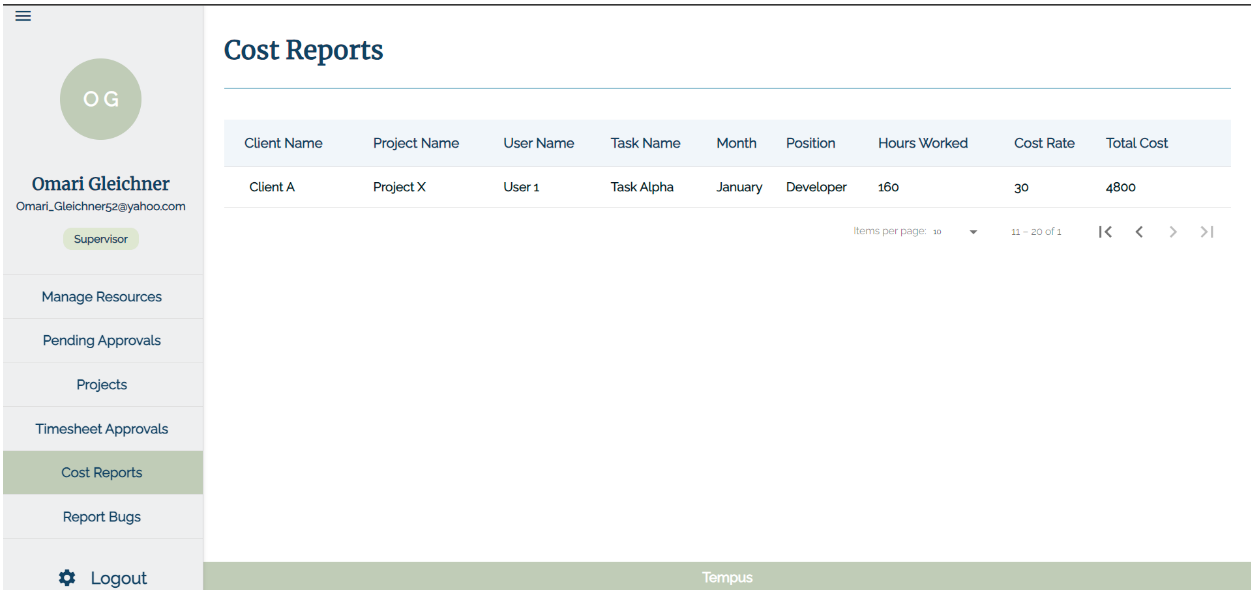
We will ensure that this feature is scalable so that it will be able to provide a quick response time regardless of the volume of data being handled.

Breadboard:



Example Report with Cost Information for User 1:





The example above showcases how a report with cost information would look when an employee generates one. In reality, there would probably be more rows as they would likely be working on (or have worked on) multiple projects for different clients.

In order to address concerns regarding potential security breaches, we will implement a data security measure for comprehensive privacy assurances. Essentially, certain information within the report will be classified depending on your role. With these measures, we can ensure that only specific information is viewable to certain roles.

To address data unavailability, we will need to integrate measures to tell the user that data is missing. When data is missing, the reports generated will lack accuracy and reliability. Because of this, when there is not enough data, we will need to notify the user that the report being generated lacks data. We can notify the user in various ways. One way we can do this is by displaying a warning message on the page.

Rabbit Holes:

A potential rabbit hole is related to privacy concerns regarding client information being viewed by users without the necessary permissions. A solution for this is implementing robust user roles and permissions so that users will only see data relevant to their own projects. Safeguarding client confidentiality is of utmost importance.

Another potential rabbit hole is performance optimization. It is paramount that we ensure that users are able to quickly and efficiently generate their reports. Unfortunately, as the amount of clients grows, the volume of data being processed will increase exponentially. This can significantly decrease the efficiency of the report generation. That is why it will be very important for us to extensively optimize our database queries in order to ensure that this does not become a major issue later on.

No Gos:

We won't worry about editing any data. We will simply focus on allowing users to pull data from the database, and display it in the report depending on their specific filters and permissions. This is due to security concerns as this data should not be able to be changed by users.