



Elmbrook

Online Timesheets & Invoicing

PROJECT

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Introduction

The project goal was to design and develop an invoicing app and remote time logging app with a database for Elmbrook Technologies. Elmbrook requested a system to generate invoices for their clients, to log hours from anywhere with an internet connection, and to generate reports.

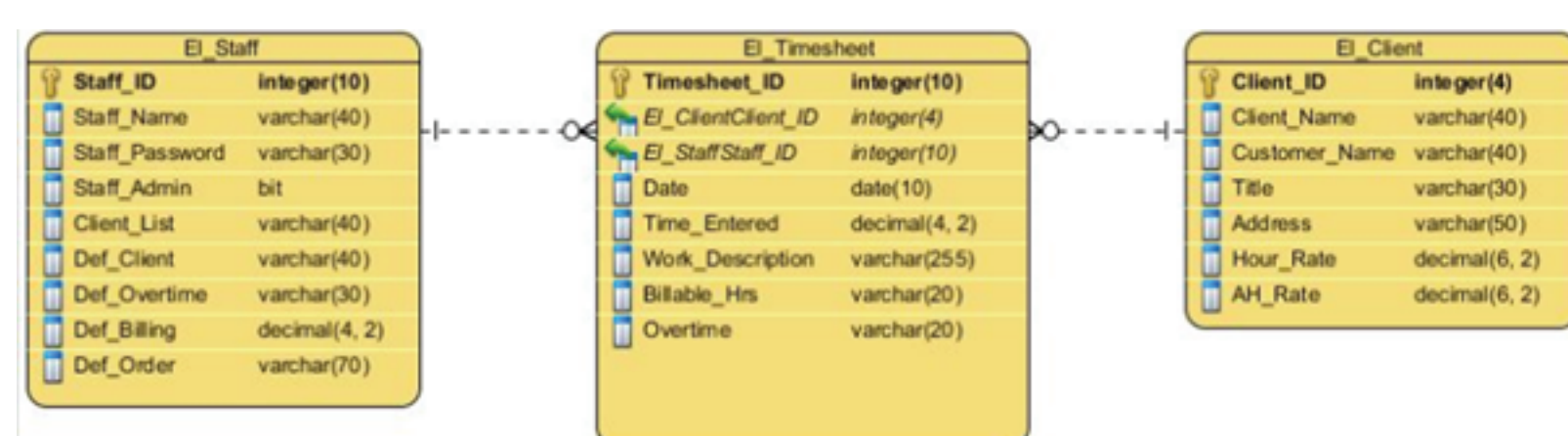


Figure 1. Elmbrook Logical Entity Relationship Diagram

Client

Elmbrook Technologies Ltd is a solution development company which specializes in developing custom built business applications, databases, business intelligence and support. Elmbrook Technologies Ltd was founded by Murray McElhinney in 1982. It has staff in Wellington New Zealand as well as the Kapiti Coast & Canada. The Company is now headed by Rob Klaassen based in Kapiti.

Scope:

- Develop a Windows app with a GUI's that enables the user to log time and generate word document invoices .
- Web App that enables the user to log time worked from anywhere with an internet connection and generate reports.
- The apps were to be written in the C# programming language and the web app will use the .NET framework.
- All design documentation will be provided along with a user guide and any other resources.

Technologies & Tools used:

The majority of the documentation for the project was completed using Microsoft office, Microsoft Project and Visual Paradigm. The applications were produced using Visual Studio 2010, the database was built in Microsoft SQL Server.

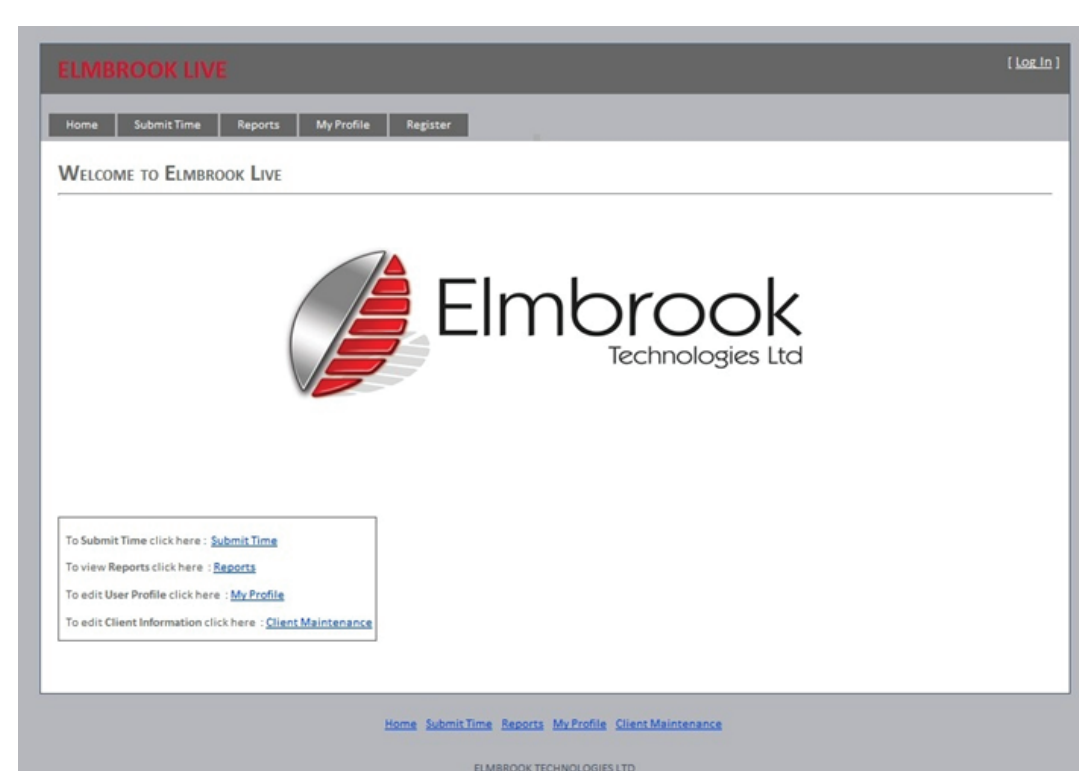


Figure 2. Elmbrook Web App Home Page

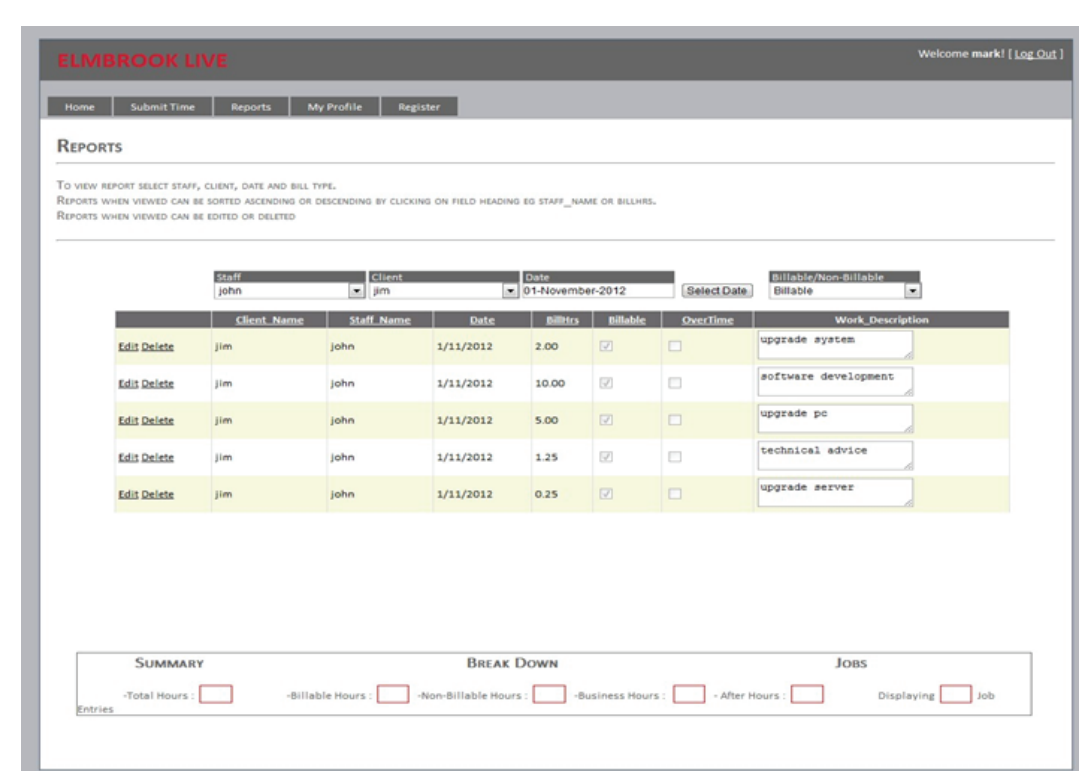


Figure 3. Elmbrook Web App Reports Page

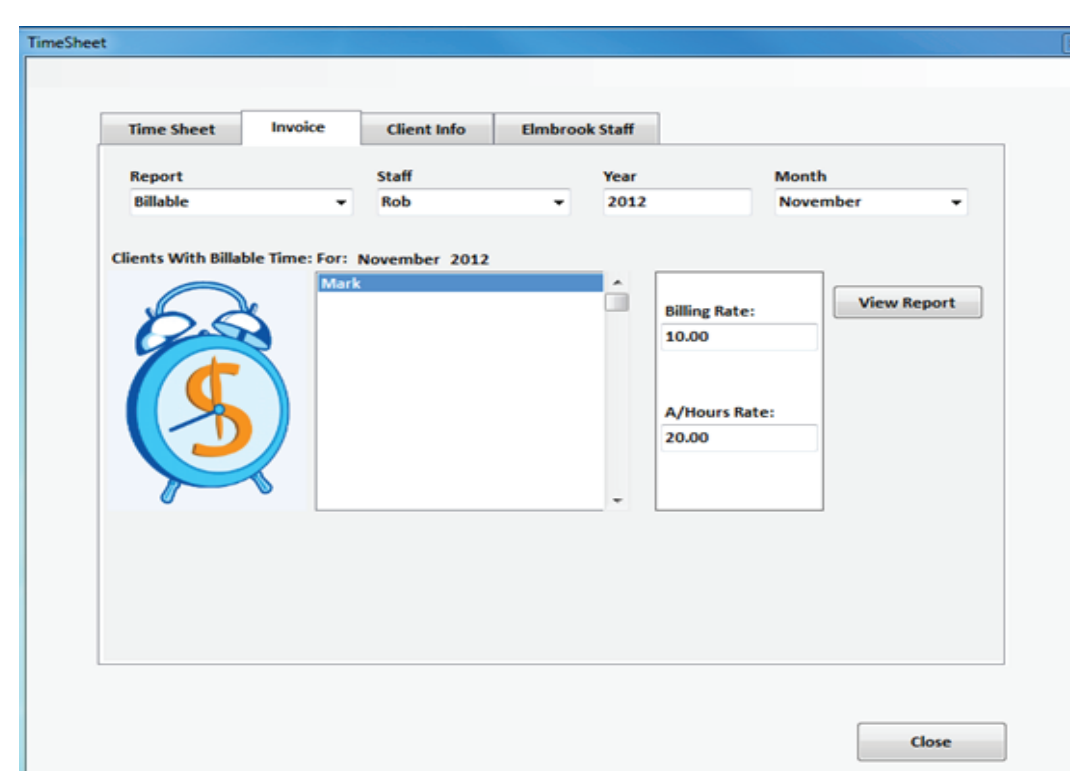


Figure 4. Elmbrook Windows App Reports Page

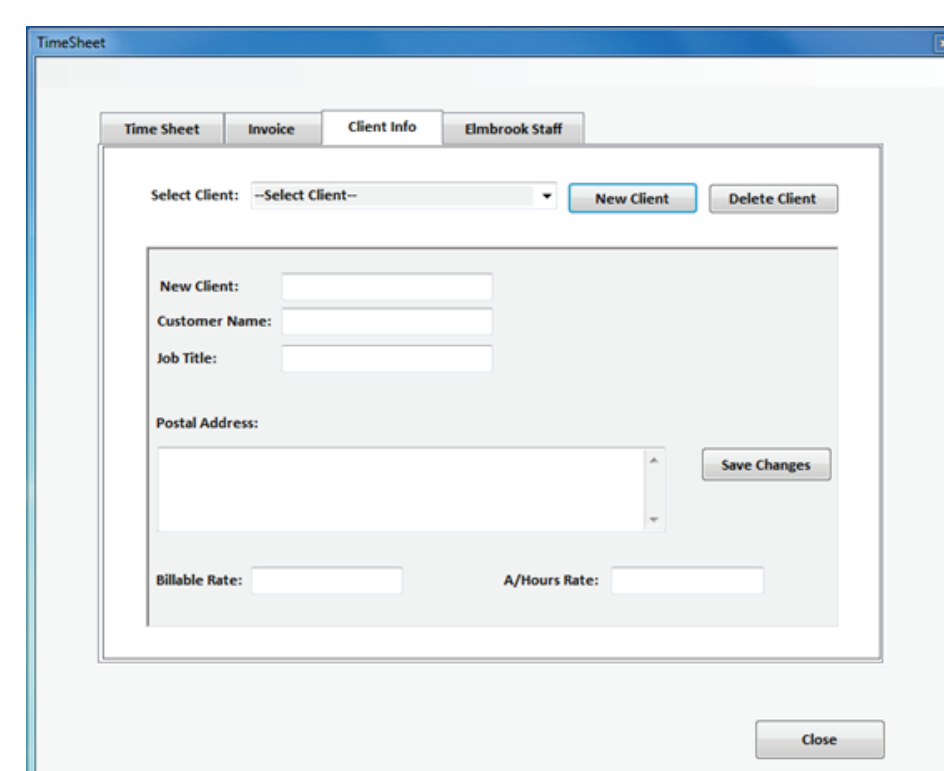


Figure 5. Elmbrook Windows App Staff Page

Methodology

The development approach used for this project was to utilize the Rapid Application Development (RAD) methodology. RAD is an agile software development methodology that uses structured and prototyping techniques to speed up software development over several iterations.

RAD is used as a guide through the four phases of this project; arranging meetings with the clients to gather system requirements, creating models and prototypes based on system requirements and identifying system functions. The project team redefined prototypes based on client feedback to ensure client satisfaction of the final product.

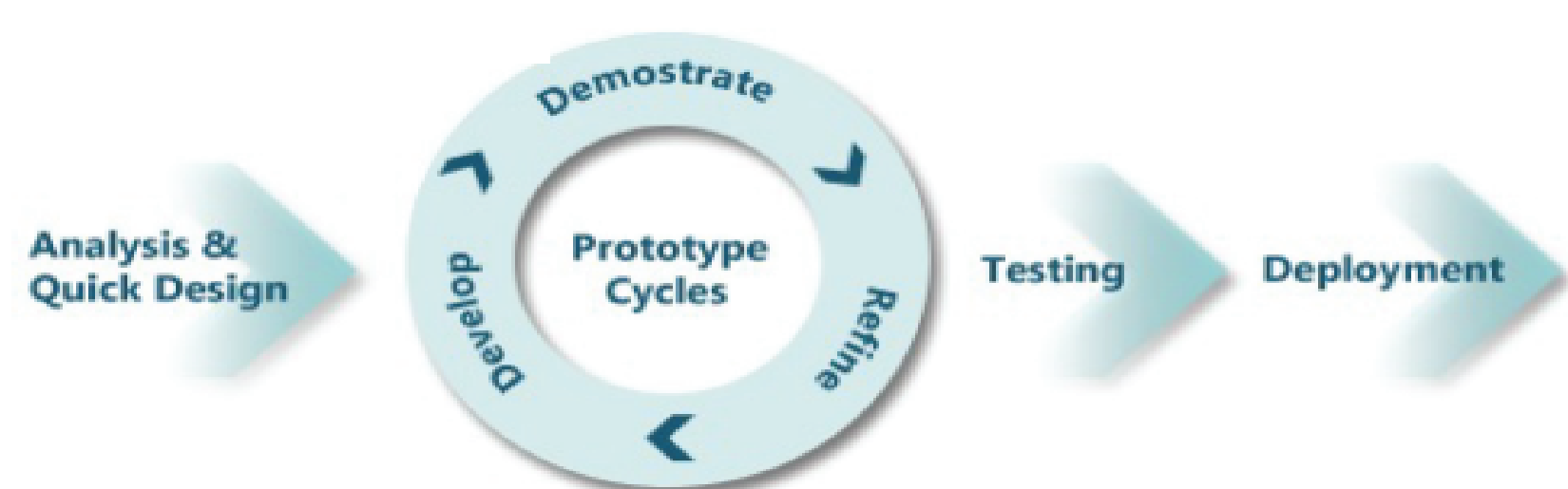


Figure 6. RAD Methodology Diagram

Project Outcomes:

- Both apps have visually appealing GUI's with consistent colour schemes.
- Ability to log hours to timesheets with add, update and delete functionality.
- Reports can be generated by both applications.
- Users can add, update and delete both clients and staff details.
- Users can view client, staff and timesheet details via the applications also enables the user to edit fields
- Reports can be exported to Microsoft Word

