**Case Study A. Datum Corporation**

**Background**

A. Datum Corporation is a large law firm. Currently, the firm uses a commercial timesheet application to track billable hours. However, this application no longer meets the firm’s needs. You are contracted to create a new solution by using the Latest technology stack.

**Interviews**

**Users**

**Lawyer, Corporate Law Division**

I am a typical end user at A. Datum Corporation. With our current software, I find it laborious to make timesheet entries. We often postpone updating our timesheets. As a result, we often forget important task details. The new timesheet application must be better suited to the way we work. Typically, I spend each afternoon writing a contract. However, I might also receive 10 telephone calls related to other cases, and I might respond to 10 e-mail messages. The new solution should make easy to record each of these tasks while I am working. Each time we begin a new task for a client, we should be able to click a button associated with that client to start a timer. Clicking the same button again, or clicking another client button, should stop the timer. A pop-up window should then prompt us to describe and categorize the task that was just completed. The expanded interface must allow us to sort, review, add and edit our entries. When we work at home, we want to be able to use the application over the internet.

**Lawyer, Criminal Law Division**

Each week we spend several hours making billable telephone calls. We make a large number of these calls while commuting to the office, while traveling to and from meeting and court appearances and while waiting at the courthouse. We want to be able to keep track of our telephone calls by using our handheld devices.

**Business Stakeholders**

**Business Manager**

We need a new solution to serve the needs of Team Leads and Business Planners. Each large project has a Team Lead. One responsibility of the Team Lead is to review and approve all timesheet entries before the entries can be used to create invoices. The new application should prevent Team Leads from viewing or approving entries that are unrelated to their projects. My own staff consists of several Business Planners. They must be able to view all timesheet entries. In addition, they must be the only users who can add new clients, create new projects, close projects and assign lawyers to projects. After a project is closed, lawyers should no longer be able to bill to it and the project should be described as completed. Team Leads and Business Planners often work at home or while traveling.

**Accounting Manager**

For billing, we use a commercial software package. Each month, I create an invoice for each of our legal clients. Currently, I need to consult a timesheet report to look up the numbers of hours billed by each lawyer to each client. Then, I must manually add a line item to the invoice for each lawyer’s hours. This task is time-consuming and clients complain about the lack of detail in the invoice. We want the new solution to include a utility that automatically creates invoices in our billing application. This utility should create the invoices once each month, on the last business day of the month. A sales representative from the billing software company told me that the billing software package is fully programmable. He can provide you with API documentation.

**IT Department**

**IT Manager**

Our IT staff consists of five people. None of them has any programming experience. The new application must include tools that alert us to all failures and help us resolve failures. The application must also be secure. Any Web application or application endpoint exposed to the Internet must require authentication.

**Business Process**

**Timesheet Entries**

Each timesheet entry is billable to a project. A given client might have several ongoing projects.

Each timesheet entry includes a time, a lawyer and a task description. The following example is a typical entry:

Lawyer: John Chen

Client: Fabrikam.Inc.

Time: 18 minutes

Project: Kite patent application

Task Description: Sent e-mail message to Ben with technical questions about Kite

**Data Migration**

Data from the existing timesheet application must be migrated to the new timesheet application.

This data is in a proprietary format. From an examination of the existing application, you learn that all required data can be exported to a comma delimited file.