

# Peer Review: ITI Solutions

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As Completed By:

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**Project:**

Edenbridge is a company which provides care primarily to individuals with special needs. They currently utilize physical forms, then transcribe all data from the forms manually to spreadsheets.

The business requirements of Edenbridge entail:

- Tracking hours worked by employees,
- Mitigating the potential for more than one worker to be scheduled for the same job,
- Specifying the department a job is involved with,
- Tracking the classification of any given employee in the context of which department they work within,
- Preventing financial data from being processed by the accounting software unless the worker has legally claimed and worked specified working hours.

ITI Solutions has set out to provide an all-digital web-app and database solution to massively increase efficiency and productivity within the company's data management, as well as provide a much easier to use scheduling interface and system for tracking and managing working hours.

Overall the project highly accomplishes the business needs and fulfills requirements to help provide a much more efficient and productive method for managing clients, scheduling, staff, and grouphomes. While the system is not currently entirely functional in every aspect of its operation, it at present, before full development, accomplishes almost all needs and shows a clear path to a completed delivery for the client.

**Strengths:**

The application was incredibly robust with fully functioning sessions that allowed particular levels of access to be granted. The system also provided extensive management of the database, allowing access and management of all required tables and forms. All forms functionally connect to the database, and all tables are connected internally through foreign keys. The system currently, while still being developed, mostly tackles the business requirements effectively.

**Weaknesses:**

**Cosmetic Deficiencies:** At present none of the CSS implementation has been completed, and as a result the visual quality of the web application is incredibly basic. That being said, they are aware of such and have plans to implement the CSS before delivery.

**Operational Deficiencies:** Entire web-application was fully operational, and had no Red Flags aside from a lack of sanitization of input. Tables potentially could be dropped through bad input.

**Functional Deficiencies:** At present there were several Stubs and incomplete features such as the Worker session hour submission, among others. They are well aware of the currently incomplete implementations and are working hard to fully flesh out all aspects.

## **Code Review:**

- Comments are comprehensible and add something to the maintainability of the code
  - Not many comments that explain what the code does, comments seemed mostly used for testing purposes
- Comments are neither too numerous nor verbose
  - Not many comments were present
- Types have been generalized where possible
- Parameterized types have been used appropriately
- Exceptions have been used appropriately
  - Code did not implement exceptions (exceptions were avoided)
- Repetitive code has been factored out
  - Some code could use some recursive implementation, however it was mostly well repeated
- Frameworks have been used appropriately – methods have all been defined appropriately
- Unit tests are present and correct
  - We were not given any unit tests
- Common errors have been checked for
  - They were aware of various issues, have not completely finished implementation of solutions to said issues
- Any security concerns have been addressed
- Performance was considered
  - Performance seemed optimal, wasn't laggy
- The functionality fits the current design/architecture
- The code is unit testable
  - They told us that they performed unit tests already, which implies the testability (we were not given any unit tests)
- The code does not use unjustifiable static methods/blocks
- The code complies to coding standards
- Logging used appropriately (proper logging level and details)
  - Not applicable, no logging used

## **Recommendations and Comments:**

- Messages and notifications need to stand out more, at present they can be hard to identify (Bigger, bolder or colour, etc.)
- Shift scheduling can be confusing (regular shift vs recurring shift), potentially allow a radio button selection to choose between the two
- Add client page allows inserting an address even if the client is currently in a group home. Implement an option to choose between the two.
- Worker session, allow workers to cycle through months to view more scheduled shifts.