# Supplementary Specifications

## Functional

### Features

* Log authentication errors to persistent storage.
* Log reservation activity.
* Notify Club BAIST Members if their reservation gets bumped.

### Security

* Authentication will be required before any functionality is usable.
* Different use cases will be enabled depending on the capabilities the user has. A user might belong to multiple authorization groups.

## Usability

### Human factors

* The interface will need to be usable as a desktop website and a mobile website.
* The website will be public facing so be careful of unnecessary jargon.

### Help

* Support for this software will be provided by us during regular business hours.

### Documentation

* Documentation will be supplied for all user facing functionality.

## Reliability

### Frequency of failure

* The system is critical to the success of Club BAIST. We will aim for 99.9% reliability (8.8 hours downtime per year).

### Recoverability

* We will be making daily incremental backups in addition to weekly full backups. We will build the system to allow for server side redundancy.

## Performance

### Response times

* The system should spend less than 50 milliseconds building the majority of pages. Network response might vary but should be less than 10 milliseconds on the local network.

### Throughput

* The system should be able to handle up to 20 simultaneous users.

### Accuracy

* Accuracy should generally not be an issue.

### Availability

* Because the Club BAIST offices are in a remote location the software will be hosted in the cloud. An internet connection to the site might not be reliable but the Golf Course Manager software will continue to be available to Club BAIST Members.

### Resource usage

* Resource usage should be in line with similar small e-commerce sites.

## Supportability

### Adaptability

* We should consider building this software to allow for multiple golf courses running on the same software.

### Maintainability

### Internationalization

* No internationalization is required for this application. It will be written in Canadian English.

### Configurability

* The Time Slots need to be configurable. The Membership Levels need to be configurable. Tax rates need to be configurable.

## Implementation

### Resource limitations

* Because the web pages will be mobile-friendly they should be written to not consume excessive bandwidth.

### Languages and tools

* The software will be written in ASP.Net using C# with SQL backend.

### Hardware

* We will need to install POS computers, networking and printers in the Club BAIST office. The server software will run in the cloud to save on hardware costs and minimize the dependency of Club BAIST on an internet connection.

## Interface

* The interface needs to be responsive to the user’s device.

## Operations

* The system does not currently require significant operator oversight. We will need to ensure that backups run correctly.

## Packaging

* This software will not be physically packaged.

## Legal

* The software will be developed for and licensed to a single client, Club BAIST. We will maintain ownership of the source code so we can license it to other clients should the need arise.

## Architectural Factors

### Factor

* The software needs to respond quickly to user requests.
* The software needs to be themed in case we want to license it to other golf courses.

### Measures and quality scenarios

* The software will be considered high quality if:
* Low response times.
* Low support calls.
* Majority of Club BAIST Members using the software.
* Club BAIST Members can easily and quickly create reservations.

### Variability (current flexibility and future evolution)

* The current system will be flexible enough to allow for changes to the Club BAIST hours and tee-off frequency. The current system will be flexible enough to allow for changes to the Membership Levels and pricing.
* In the future the system should be flexible enough to allow for multiple golf courses.