[GOLF COURSE] Tablet Data Entry Site

High Level Estimate

# Assumptions

The estimation is based on the following set of assumptions –

* Levels of effort are in person-days, which consist of 8 hours of development time.
* The application will be hosted within the existing [GOLF COURSE] facility. No network access or security concerns exist with respect to integration with CRM, SharePoint, Active Directory, or FMS.
* User security and permissions are controlled through Active Directory; integration with other [GOLF COURSE] systems does not require and additional security context.
* Application hosting infrastructure will be setup and configured by members of the [GOLF COURSE] IT department.
* The design of the website will be optimized for tablets using a general web presentation; it will not attempt to use device-specific styling to mimic a native application.
* The website will be targeted at modern HTML 5-compliant browsers, with a focus on Internet Explorer 10 (Windows 8) and Mobile Safari (iOS 5.)
* The website will not require smartphone optimizations; Smartphone clients will access the same version of the site as desktop/tablet clients
* Third party survey data is readily available via an existing service endpoint or database; no intermediary services need to be built.
* Exchange Web Services are installed, available, and configured for integration with calendar data.
* SharePoint Web Services are installed, available, and configured for integration with the SharePoint site.
* Form data will be reported on both in ad-hoc and aggregation making a document-centric storage approach undesirable.
* Current InfoPath forms are assumed to be somewhat complex and contain moderately extensive business logic for validation and calculations.
* Exchange calendar view is read-only; no updates or creation of appointments is required.
* SharePoint document view is read-only; no updates or addition of **new** documents is required.

# High Level Estimate

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| --- | --- | --- | --- |
| **Task** | **Low (days)** | **High (days)** | **Average (days)** |
| ***General Tasks and Infrastructure*** |  |  |  |
| Solution creation and configuration | 0.25 | 0.5 | 0.375 |
| Website design and reference implementation | 5 | 7 | 6 |
| Website common infrastructure | 1 | 3 | 2 |
| Active Directory integration | 1 | 2 | 1.5 |
| Offline data storage infrastructure | 1 | 2 | 1.5 |
| ***Data Entry Forms*** |  |  |  |
| Form data service base infrastructure | 1 | 2 | 1.5 |
| Occasionally connected local/remote infrastructure | 2 | 3 | 2.5 |
| Permissions/access infrastructure | 1 | 2 | 1.5 |
| ***Per Form Tasks (single form totals)*** |  |  |  |
| InfoPath form analysis | 0.5 | 1.5 | 1 |
| Database structure creation | 0.25 | 0.5 | 0.375 |
| HTML form user interface implementation | 1 | 2 | 1.5 |
| HTML form business rule implementation | 1 | 2 | 1.5 |
| Data service endpoint creation | 0.5 | 1 | 0.75 |
| PDF generation and SharePoint integration | 0.5 | 1.5 | 1 |
| Permissions configuration | 0.5 | 1 | 0.75 |
| ***Additional 14 Forms Totals*** | 59.5 | 133 | 96.25 |
| ***Calendar View*** |  |  |  |
| Exchange integration | 0.5 | 1.5 | 1 |
| HTML user interface implementation | 1 | 3 | 2 |
| ***SharePoint Document View*** |  |  |  |
| SharePoint integration | 1 | 2 | 1.5 |
| HTML user interface implementation | 2 | 3 | 2.5 |
| ***Home View*** |  |  |  |
| CRM integration | 0.5 | 1.5 | 1 |
| Survey integration | 0.5 | 1.5 | 1 |
| FMS integration | 0.5 | 1 | 0.75 |
| HTML user interface implementation | 1 | 2 | 1.5 |
| ***Voice of Pro Player View*** |  |  |  |
| Survey integration | 1 | 1.5 | 1.25 |
| HTML user interface implementation | 2 | 3 | 2.5 |
| PDF/CSV export implementation | 0.5 | 1 | 0.75 |
| ***Golf Course Properties View*** |  |  |  |
| FMS integration | 0.5 | 1 | 0.75 |
| CRM integration | 0.5 | 1.5 | 1 |
| Map provider integration (Google/Bing/etc) | 0.5 | 1.5 | 1 |
| HTML user interface implementation | 1 | 3 | 2 |
| ***Financials View*** |  |  |  |
| SharePoint integration | 0.5 | 1.5 | 1 |
| HTML user interface implementation | 1 | 1.5 | 1.25 |
| ***FTE View*** |  |  |  |
| FMS integration | 0.5 | 1 | 0.75 |
| CRM integration | 0.5 | 1.5 | 1 |
| HTML user interface implementation | 2 | 4 | 3 |
| ***Testing and Deployment*** |  |  |  |
| Unit Testing | 8 | 10 | 9 |
| QA Fixes | 5 | 10 | 7.5 |
| Deployment | 1 | 1 | 1 |
| ***Totals*** | **107.5** | **222.5** | **165** |