### Assessment 5 – Weight 25%

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| **Aspect to be evaluated** | **Detail** | **Total mark** | **Learner mark** | **Comment** |
| **Architecture** |  | **35** |  |  |
| Model | Back-end class design according to documentation (5), is suitable for the application needs (2) and suitably structured (3). | 10 |  |  |
| Controller | The controllers perform their functions as required by the MVC architectural guidelines (5). Server-level error handling occurs here (5). | 10 |  |  |
| Views | No direct access to database data or to models. | 5 |  |  |
| Overall operation | The architecture functions correctly. Any error in direction of links -5. | 10 |  |  |
| **Security** | Basic role-based security for at least two **roles** is provided to include:  Creation of users (2)  Log on verification (3)  Access to pages based on logged-on user and role (2).  Display of default page based on logged-on user and role (3). | **10** |  |  |
| **Business functionality** |  | **85** |  |  |
|  | Enough business data is captured in database to create a professional impression. | 5 |  |  |
| **Write operations on database** | The application covers all important business aspects in terms of data-entry, changes and deletions. 20  -5 for any missing important business functionality. | 20 |  |  |
|  | All pages correctly perform their functions (4 pages to be assessed) (4 x 5 = 20)  0 for any page that does not function correctly. | 20 |  |  |
| **Reports** |  |  |  |  |
|  | The application includes at least 4 reports that are critical to the business operation (4).  -2 for any missing report deemed important. | 4 |  |  |
|  | Reports are correct and complete (include all important aspects for the type of report) (4 x 5 = 20).  Any missing aspect on any report -2.  Any report that is incorrect gets 0. | **20** |  |  |
|  | Reports are filtered and ordered, as required by the business. A suitable number of filters must be included to ensure flexibility of information retrieval.  At least 1 filter per report, **over and above** the filter related to security aspects. **At least one report contains 2 or more filters.** Any missing filter results in 0 for this aspect. Any report contents that are not filtered according to the filter(s) result in 0 for **the report** (4 x 2 = 8).  Report filters maintain their state when the information is retrieved (4 x 2 = 8). | **16** |  |  |
| **User interface design** |  | **35** |  |  |
|  | A simple role-based menu system (3) is provided to access all pages on the application (2). | 5 |  |  |
|  | The system appears professional. Alignment of controls, business terminology on controls (2).  Standardised look throughout site (3).  Stylesheet used to style html elements (3).  Any aspect that looks unpolished here **-3.** | 8 |  |  |
|  | Every page has a title. Any page without a title -1/2. | 2 |  |  |
|  | A range of **suitable** controls used for a rich UI that simplifies data-entry. 1 mark for each non-textbox control to a maximum of 10.  Using a text box in stead of an alternative more appropriate control (e.g. dropdown) -5. | 10 |  |  |
|  | Default values are supplied to simplify data-entry. This is especially important on all report pages.  Default values are carefully designed, and are not just the first value in a drop-down list.  -5 for any missing or inappropriate default value. | 10 |  |  |
| **Exception handling** |  | **25** |  |  |
| Client-side | Client-side exception handling using suitable controls, html patterns and javascript where applicable.  Validation of required fields (1), date values with (1) and without date controls (3), numeric values (2), equal values (e.g. passwords) (1) text length (2) and ranges of values (1) demonstrated. Handled on all pages – ***any*** instance of invalid data-entry or change **-5**  Context-sensitive error messages displayed on view pages as part of UI (neat display). 4 | 15 |  |  |
| Server-side exception handling | Context-sensitive messages with suitable server-side error-handling. | 10 |  |  |
| **Total** |  | **180** |  |  |