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# FIT5042 C/D/HD Design Report (Major Tasks)

# Indigenous Heritage Animal Zoo

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INSTRUCTIONS: Substitute all RED text with your information. DELETE all BLUE instructions before final submission (in PDF format). Feel free to edit the format of the document to improve presentation

**Contents Page**

**Your design report must include the following:**

**Credit Level**

1. Overview of your application's goals
2. User stories
3. Functional diagram
4. Usability Design Review
5. Checklist of site functionality.

**Additional Distinction Level (the above and the following)**

1. Entity Relation Diagram
2. Data dictionary

**Additional High Distinction Level (the above and the following)**

1. Development Methodology
2. Versioning

**Your design report must include the following:**

**Credit Level**

1. **Overview** (of your application’s goals)

The Indigenous Heritage Animal Zoo (IHAZ) will be a web application used by LocalHeritage Pyt Ltd to showcase different animals in the Australian ecosystem. The website will have educational data on the different animals as well as articles that can be read by users to provide more contextual background information and shine light to any topics affecting animals in the ecosystem. The theme of the application will be deep purple, white and black as well as an accent colour to complement the purple.

1. **User stories (that are driving your design decisions)**
   * As a user I would like to see names of different animals in the Australian ecosystem.
   * As a user I would like to see pictures of different animals to have a more interactive experience while using the app.
   * As a user I would like to see more information on different animal such as what family they belong to in order to learn more about the animal.
   * As a user I would like to see articles on different animals to give me a learning experience while using the web app.
   * As a user I would like to be able to suggest an animal which is not in the database to give the admins a chance to add it.
   * As a user I would like to search animals with different criteria to find the animal I have in mind.
   * As a user I would like to see at least 20 different animals on the web app
2. **Functional diagram** (illustrating how the core aspects of the program fit together.
   * **\*\* To be refined with diagram**
   * A shared package with all animal entities as well as supporting entities for functionality such as Articles.
   * A Java Derby database which will run alongside the web app on a glassfish server.
   * An EJB package which will use the entities described in the shared package to set up the business logic which in this case will be the different animal entities
   * A JSF, bootstrap grid system front end that will handle the displaying of data to the users and admins
3. **Usability Design Review** (identify usability features built into your design)
   * Navigation bar to easily browse different parts of the app.
   * A bootstrap interface for a clean modern look
   * Reasonably sized links and buttons to all ease of use on touch screens
   * Pictures of animals to browse easily
   * Detail pages with more information on animals
   * A robust suggestion feature to allow users to suggest animals that are not in the database
   * A search bar on at least the homepage.
   * Results page with tabulated data and links to detail page
4. **Checklist of site functionality**

|  |  |
| --- | --- |
| **1. Credit Functionality** | **TICK**  **if complete** |
| The Web Application must be able to search results of at least two tables |  |
| Results with tabular format with heading. |  |
| Option to view the full details |  |
| Validations in place |  |
|  |  |
| **2. Distinction Functionality** |  |
| All users can: View |  |
| Add |  |
| Update |  |
| Delete |  |
| Workers can update / delete other users’ entries |  |
| Implementation of validations for Dates, emails, phone numbers, two passwords same |  |
|  |  |
| **3. High Distinction Functionality** |  |
| Search for data in tables using a combination of fields |  |
| use of a RESTful Web Service in your application |  |
| Make use of some features from javaScript framework / Ajax |  |
|  |  |
| **4. Technical Requirements** |  |
| **Credit** |  |
| JSF web clients |  |
| Persistence API |  |
| Application managed entity manager or container managed entity manager. |  |
| JPQL to retrieve data |  |
| **Distinction** |  |
| Web client is required |  |
| BOTH Criteria API and JPQL |  |
| Role based authentication (implemented using JAAS) |  |
| Interaction between clients and database handled by EJBs |  |
| **High Distinction** |  |
| use of a RESTful Web Service in your application |  |
| Use of JavaScript Frameworks / Ajax |  |
| Ability of mapping inheritance to database must be demonstrated. |  |
| Bean validations used to validate data. |  |
| Consumption of web services conducted in EJBs. |  |
|  |  |
| **Audit** |  |
| No breaking of copyright |  |

**Additional Distinction Level (the above and the following)**

1. **Entity Relation Diagram**
2. **Data dictionary** (of your application, including the main data structures and types used in your application.)

**Additional High Distinction Level (the above and the following)**

1. **Development Methodology**
2. **Versioning** 
   * Versioning will be done through github