**Product Breakdown**

**Database**

* Designs
* Create tables
* Populate
* SQL commands

**Backend**

* **Designs**
  + Project Architecture Diagram
  + Clear variable names

* **Login page**
  + Checks user exists
  + Text validation

* **Registration page**
  + Check username available
  + Encrypt password
  + Text validation
  + Email notification

* **Forum selection page**
  + Get role / admin
    - Admin – access to everything
    - QAM – access to all information
    - QAC – access to all department information, basic for the other departments
    - Staff – Basic information
  + Retrieves forums
  + Create forum
    - Text validation
    - Store to database

* **Forum page**
  + Get role / admin
    - Admin – access to everything
    - QAM – access to all information
    - QAC – access to all department information, basic for the other departments
    - Staff – Basic information
  + List of ideas
    - Either like / dislike can be selected
    - Liking / disliking can only be done once
  + Retrieve ideas
  + Create idea
    - Text validation
    - Store to database
      * Link post to user, even if posting anonymously
    - System sends department QAC a notification email

* **Idea page**
  + Get role / admin
    - Admin – access to everything
    - QAM – access to all information
    - QAC – access to all department information, basic for the other departments
    - Staff – Basic information
  + Idea
    - Either like / dislike can be selected
    - Liking / disliking can only be done once
  + Retrieve comments
  + Create comment
    - Text validation
    - Store to database
      * Link post to user, even if posting anonymously
    - Automatic notification email sent to idea poster

* **Admin page**
  + Categories
    - Add to database
    - Edit – updating database
    - Delete – update removed Boolean, only unused categories

**Frontend**

* **Designs**
  + Desktop
  + Mobile

* **Login page**
  + Enter a username and password

* **Registration page**
  + Enter username, password, email, role and department

* **Forum selection page**
  + List of forums
    - Display each forum display name, closure date, description, number of ideas
    - Click to view
    - Delete
  + Create forums
    - Enter name, description, closure date
  + *Forum pagination?*

* **Forum page**
  + Forum
    - Display name
  + List of ideas
    - Display each poster username, title, message, date posted, number of likes, dislikes and comments
    - Highlight if idea has been liked / disliked by user
    - Click to like / dislike
    - Click to view
    - Delete – only admin, QAM, department QAC, poster can see
  + Create ideas
    - Enter title, message, upload documents, whether to be anonymous
    - Select categories
    - Disabled after forum closure date
  + Idea pagination – five per page
  + Filter ideas
    - Most popular ideas (likes and dislikes)
    - Most viewed ideas
    - Latest ideas posted
    - Latest comments – *returns idea with latest comments, or displays just comments?*
  + Download forum
    - Only for QAMs
    - Once final closure date elapses
    - Data stored in a CSV file and documents should be zipped

* **Idea page**
  + Idea
    - Display idea poster username, title, idea text, message, number of likes, dislikes and comments
    - Highlight if idea has been liked / disliked by user
    - Click to like / dislike
  + List of comments
    - Display poster username, message, date posted
    - Username shown as ‘Anonymous’ if poster asked to
    - Username shown as ‘Deleted’ if account removed
  + Create comments
    - Enter message, whether to be anonymous
    - Disabled after forum final closure date
  + Delete - only admin, QAM, department QAC, poster can see
  + *Comment pagination?*

* **Admin page**
  + Edit forums
    - Update closure date
    - Delete
  + Edit users
    - Update data
    - Delete

* **Statistics page**
  + Number of ideas per department
  + Percentage of ideas per department
  + Number of contributors from department

* **Other**
  + Edit categories
    - Add
    - Edit
    - Delete
      * *Display only unused?*

* **Devices**
  + Adaptable for phone, tablets and computers

**Users**

* Quality Assurance Manager
  + Only one
  + Oversee the project

* Quality Assurance Coordinator
  + One per department
  + Manages their department
  + Encourages staff to contribute

* Staff (academic or support)
  + View all ideas (even when no logged in)
  + Can submit one or more ideas
  + Can comments on any idea
  + Staff must agree to Terms and conditions before submitting
  + Can upload docs with ideas
  + Like or dislike ideas