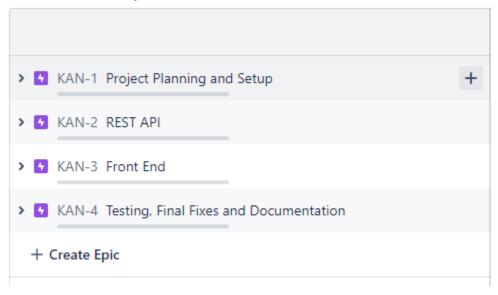
Reflection Report

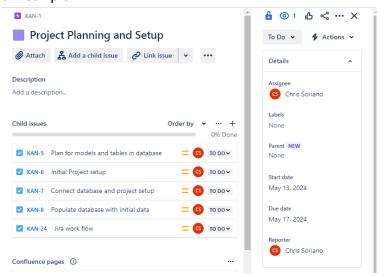
Making this Exam Project was a challenging but fulfilling one. It requires good attention to detail and understanding of SQL intricacies.

Since we have 1 month to complete the project, I decided to divide it into 4 sprints. Each sprint consist of 1 Epic issue with several child issues under it.

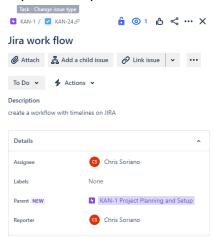
Below is a screenshot of the Epic issues:



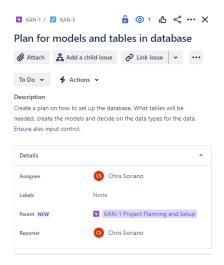
My first Epic is Project Planning and Setup and it was from May 13, 2024 to May 17, 2024. It consists of 5 issues that was important in establishing a database. Below is a screenshot of the issues under the first Epic.



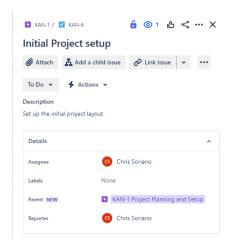
The first issue was under the first Epic was to plan the work flow through Jira.



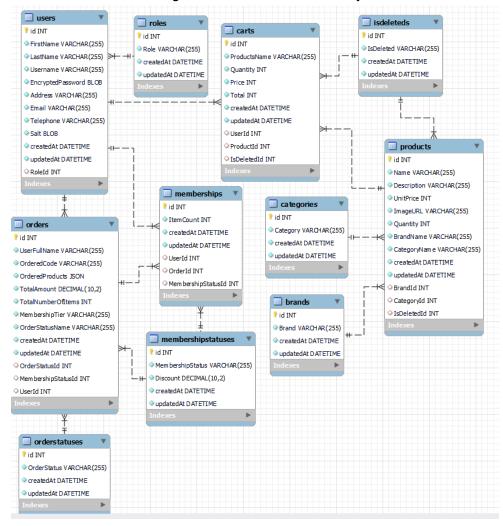
The second issue under the first Epic was Planning for models and tables for the database. For me, this issue was the most challenging of all issues in the project since this requires you to think many steps ahead. Imagining how your tables are going to look and what data and data types you will be using to populate it. Below is a screenshot of the issue.

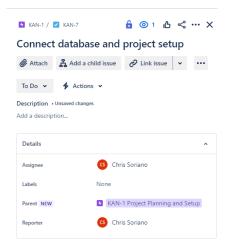


The thirdissue under my first Epic was initial project setup. Here I generated the initial templates and installed dependencies that are needed to start my project. Below is the screenshot of the issue.

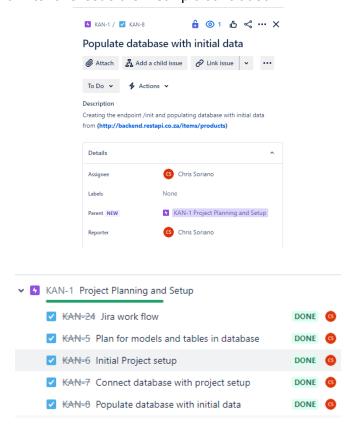


The fourth issue was Connecting the database with the project setup. Here, I executed the plan I had with during the first issue. I generated models and created tables that would contain the data I wanted to manipulate in my project. Here I needed to recreate the tables a couple of times until I was satisfied with the right combination of data in my tables.

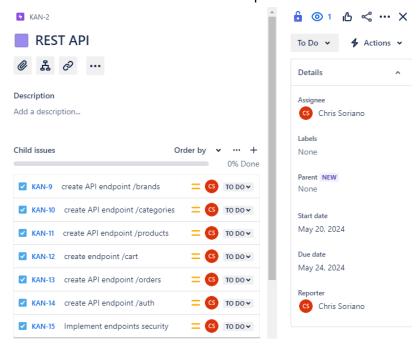




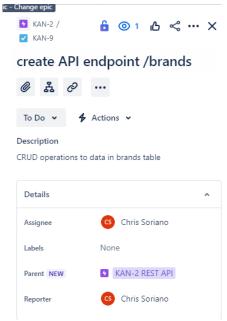
The last issue for the first Epic was to populate the tables with data that was provided by the school through the API endpoint (http://backend.restapi.co.za/items/products). Here I created the utility endpoint /init. After this issue the first Epic concluded.



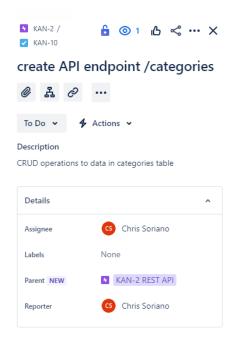
My second Epic is Creating the REST API and it was from May 20, 2024 to May 24, 2024. It consists of 7 issues all needed to create, read, update and update data in the database. Below is a screenshot of the issues under the second Epic.



The first issue for the second Epic is to create the /brands endpoint. This endpoint will have all the CRUD operations inorder to manipulate the brands data.



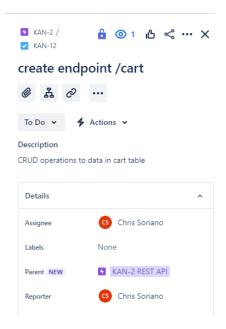
The second issue is to create the /categories endpoint. This endpoint will have all the CRUD operations inorder to manipulate the categories data.



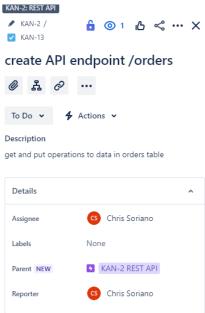
The third issue is to create the /products endpoint. This endpoint will have all the CRUD operations in order to manipulate the products data.



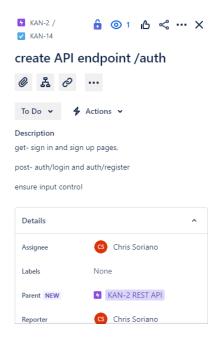
The fourth issue is to create the /cart endpoint. This endpoint will have all the CRUD operations in order to manipulate the cart data.



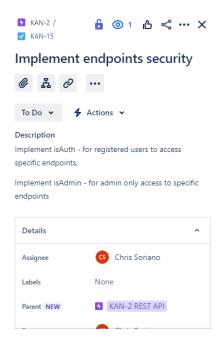
The fifth issue is to create the /orders endpoint. This endpoint will only have GET and PUT, as per instructions, in order to manipulate the orders data.

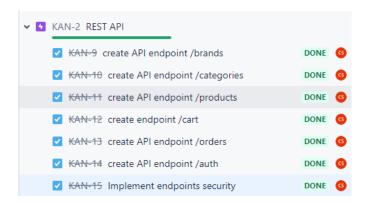


The sixth issue is to create the /auth endpoint. This endpoint will contain the login and register endpoints that will allow users to authenticate/register themselves when using the app.

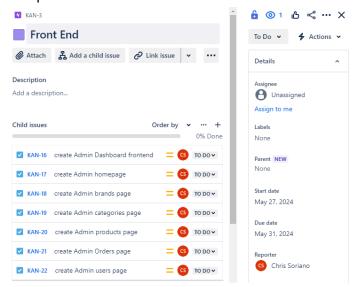


The seventh issue is to apply security measures to some of the endpoints. This was achieved by creating isAuth and isAdmin function. By adding these functions some endpoints can only be accessed by the user only when they authenticate themselves by signing in. Also protecting the endpoints that are only intended for the Admin to access. After this the second Epic was completed.

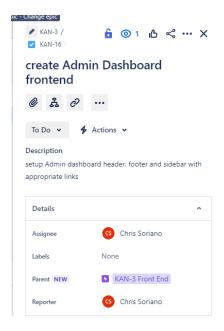




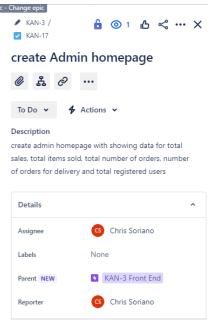
My third Epic is Front End and Admin Setup and it was from May 13, 2024 to May 17, 2024. It consists of 5 issues that was important in establishing a database. Below is a screenshot of the issues under the first Epic.



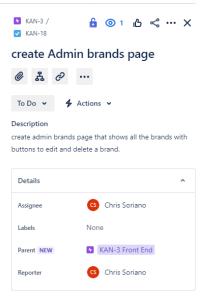
The first issue for the third Epic is to create the frontend for the Admin's Dashboard. Here i designed the header, footer and also the sidebar.



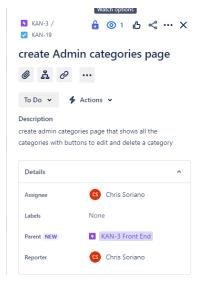
The second issue for the third Epic is to create the frontend for the Admin's Homepage. The homepage shows important data like total sales, total items sold, total number of orders, products with low inventory, number of orders for delivery and total registered users.



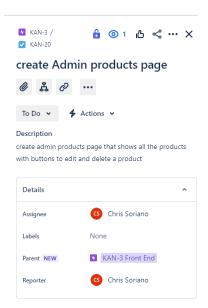
The third issue for the third Epic is to create the frontend for the Admin's Brands page. Here I access the /brands endpoint I created during the second Epic and showed the data on the table.



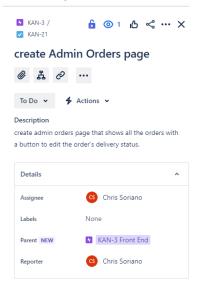
The fourth issue for the third Epic is to create the frontend for the Admin's Categories page. Here I access the /categories endpoint I created during the second Epic and showed the data on the table.



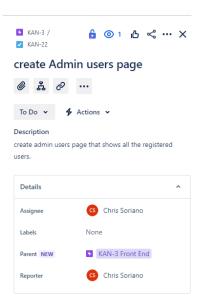
The fifth issue for the third Epic is to create the frontend for the Admin's Products page. Here I access the /products endpoint I created during the second Epic and showed the data on the table.



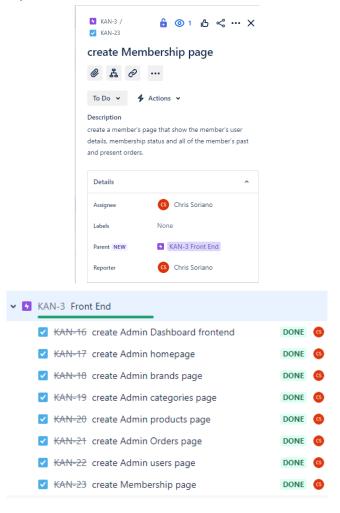
The sixth issue for the third Epic is to create the frontend for the Admin's Orders page. Here I access the /orders endpoint I created during the second Epic and showed the data on the table.



The seventh issue for the third Epic is to create the frontend for the Admin's Users page. Here I showed how many users and their details that have registered for our app.



The eighth issue for the third Epic is to create the frontend for the Member's page. Here I showed the logged in user's details, membership status and all of the orders of the logged in user. After this the third Epic was finished.



My last Epic is Testing, Swagger and Jira Documentation and it was from June 03, 2024 to June 07, 2024. For the testing several endpoints was specified to be tested and all of those endpoint are came out successful and other known bugs were also fixed. Swagger and Jira Documentation are quite self explanatory. Swagger documentation can be accessed throught the /doc endpoint.

