**Week03 – JIRA Management Task – QUESTION PAPER**

Complete the following elements concerning the development of the case study called: **FastBurgersNow.**

These should be integrated into the development cycle which is for the database.

INFORMATION:

* Typical sprint is 4-6 weeks in duration – out of sheer convenience we will suggest a 6-week sprint.
* Give equal timings for each of the epics (just from a convenience point of view).
* Create as many stages as needed (your decision) – to correspond to the stages shown below.
* Normally the **group members** are as follows: Product Owner, Scrum master, 3 – 4 Developers (Suggest we have 3 developers)
* For the outputs – devise at least 3 tasks for each of the epics within the sprint.
* You will need to complete the development cycle on the word document below – a good indicator would be the homework tasks that I assign each week.
* The epics – could be interpreted as being the “Elements” in the first column shown below.
* Create your own sprint – using the scrum template and assign me as one of its members – that means send me an invite to my college email address: john.piperias@edinburghcollege.ac.uk.
* Invent any other details needed to complete a full cycle – for the development of a complete database (backend) system.
* Use my example on Jira as the model which shows the overall structure for the sprint (Using SCRUM template) as the basis for the design.
* Distribute the various issues (tasks) equally into the various columns: To Do, Progress and Done.

SUBMISSION:

Take a screenshot of the Timeline that shows all the Timeline and the Board – this doesn’t need to show all the tasks. Paste this inside this document in the section below.

Your Name: Paolo Pironi

Date: 04/10/2025

Course: Relational Databases

Student Number: EC2274393

**STAGE: REQUIREMENTS DEFINITION**

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| **Element** | **Tool(s) Used** | **Purpose** | **Timings** | **Outputs** |
| Read the case study and understand how to disaggregate the system into ENTITIES. | Word processor. | PROJECT MANAGER: This is the role of the project manager (YOU) – to understand and interpret the requirements from the information you have being given. | 1 Week  (6th -13th October) | Document listing all the entities. Draft ERD and indication of type of relationship between entities. |

**STAGE: ANALYSIS**

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| **Element** | **Tool(s) Used** | **Purpose** | **Timings** | **Output** |
| Devise the ERD (Entity Relationship Diagram) – use appropriate logic to construct the ERD. | io.draw, Visio. | ANALYST: Mostly you are constructing this – so you can understand the database design. | 1 Week  (13th -20th October) | Entity-Relationship Diagram (ERD) |
| Data Dictionary – construct the tables and load all the attributes along with the relevant characteristics (*data type, size, null/not null, foreign key constraints* etc). | Spreadsheet. | ANALYST: Mostly you are constructing this – so you can understand the database design and quickly implement these. | 1 Week  (13th -20th October) | Data Dictionary in Excel/Google Sheets. |

**STAGE: IMPLEMENTATION**

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| **Element** | **Tool(s) Used** | **Purpose** | **Timings** | **Output** |
| Create the database tables | SQL, phpMyAdmin. | DEVELOPER: use SQL CREATE TABLE statements to create the tables according to the Data Dictionary. | 1 Week  (20th -27th October) | A text file with all the CREATE TABLE statements. |
| Populate the tables with data | SQL, phpMyAdmin. | DEVELOPER: use SQL INSERT statements to add data to the tables. | 1 Week  (27th October – 3rd November) | A text file with all the INSERT statements. |

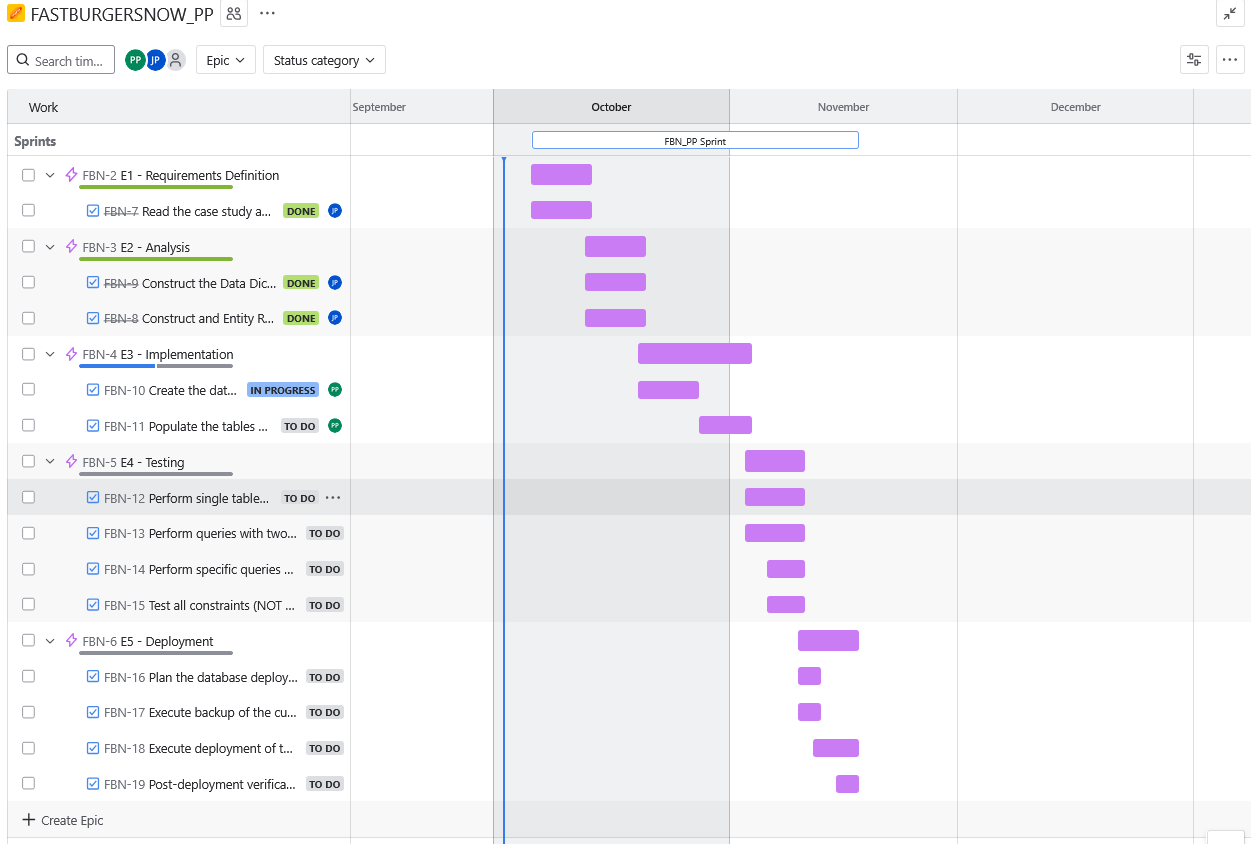
**STAGE: TESTING**

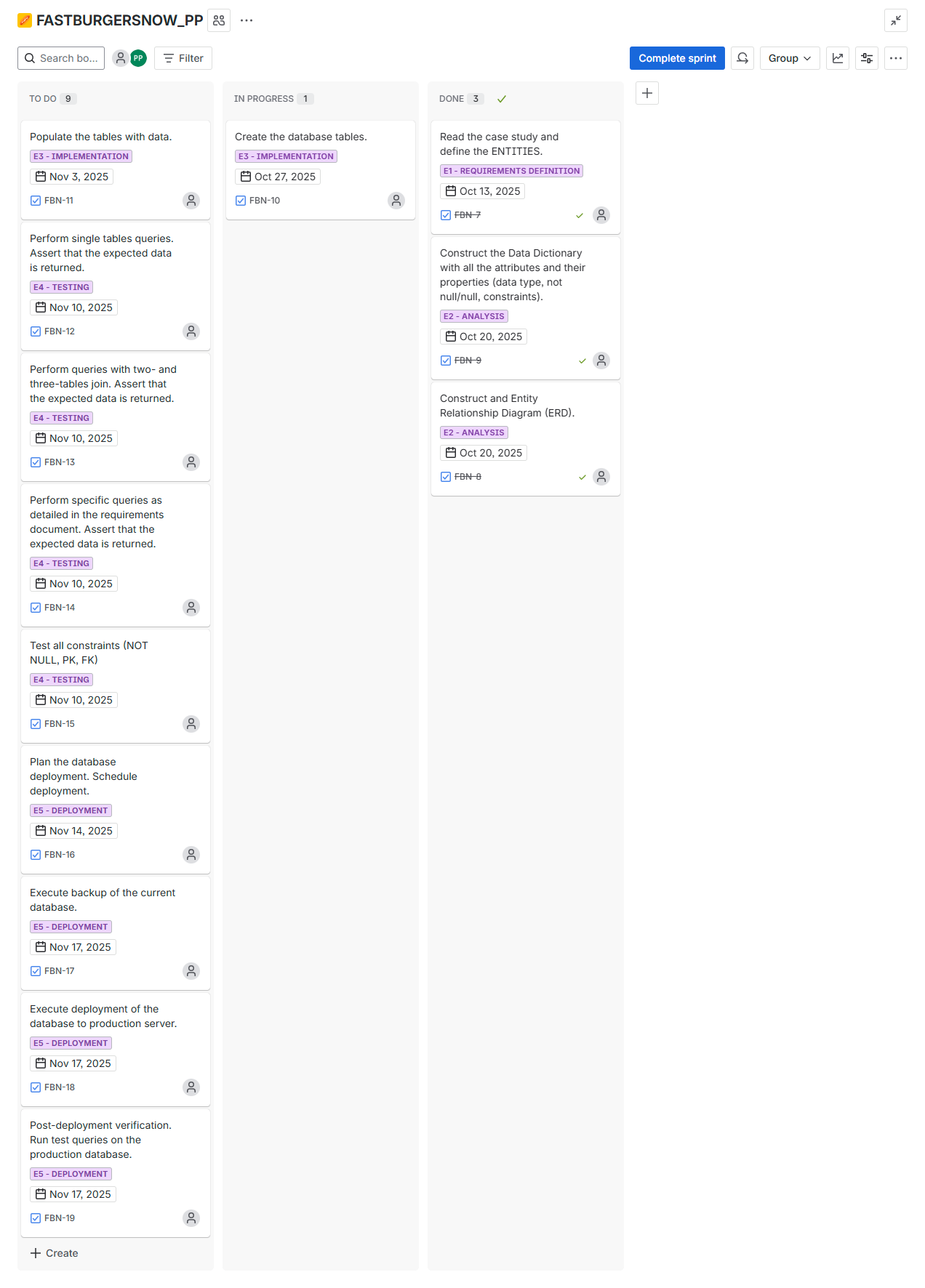
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| **Element** | **Tool(s) Used** | **Purpose** | **Timings** | **Output** |
| Perform single tables queries. | SQL, phpMyAdmin. | DEVELOPER: assert that the expected data returned. | 1 Week  (3rd -10th November) | A document listing all the test queries, the expected output and the result. |
| Perform queries with two- and three-tables joins. | SQL, phpMyAdmin. | DEVELOPER: assert that the expected data returned. | 1 Week  (3rd -10th November) |
| Perform specific queries as detailed in the requirements document. | SQL, phpMyAdmin. | DEVELOPER: assert that the expected data returned. | 5 Days  (6th -10th November) |
| Test all constraints (not null, PK, FK). | SQL, phpMyAdmin. | DEVELOPER: verify that the constraints work, e.g., two items with the same id cannot be created, or an item cannot be created without a required FK. | 5 Days  (6th -10th November) | A log or screenshot showing attempt to violate constraints correctly blocked. |

**STAGE: DEPLOYMENT**

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| **Element** | **Tool(s) Used** | **Purpose** | **Timings** | **Output** |
| Plan the database deployment. | Word processor. | PROJECT MANAGER: in agreement with the product owner, schedule deployment in a period of low user activity. | 2 Days  (10th -12th November) |  |
| Execute current database backup. | SQL, phpMyAdmin. | DEVELOPER: create backup of current database. | 2 Days  (10th -12th November) |  |
| Execute database deployment. | SQL scripts. | DEVELOPER: execute the deployment on the production server. | 5 Days  (12th -17th November) |  |
| Execute post-deployment verification. | SQL, phpMyAdmin. | DEVELOPER: run test queries on the production database. | 2 Days  (15th -17th November) |  |

**JIRA EVIDENCE (Screenshots)**



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