**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.

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Date: 30/05/2024

Course: Database Technologies EC149762022

Student Number: EC2279898

**STAGE: Requirements Definition**

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| **Element** | **Tool(s) Used** | **Purpose** | **Timings** | **Outputs** |
| Read the case study and understand how to deaggregate 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. | Week 1 |  |

**STAGE: Analysis**

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

**STAGE: Development**

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|  | **Tool(s) Used** | **Purpose** | **Timings** | **Output** |
| Set up version control system for collaborative development and tracking changes | Jira | Ensure that all changes to the database schema are tracked and versioned properly | Week 2 | Version Control System Setup |
| Design and implement the database schema based on the finalized ERD and data dictionary | MySQL | Create the actual database schema based on the designs | Week 2 - 3 | Database Schema |
| Develop CRUD operations (Create, Read, Update, Delete) for each entity in the database schema | SQL | Implement the basic operations needed to manage the data in the database | Week 2 - 3 | CRUD Operations |

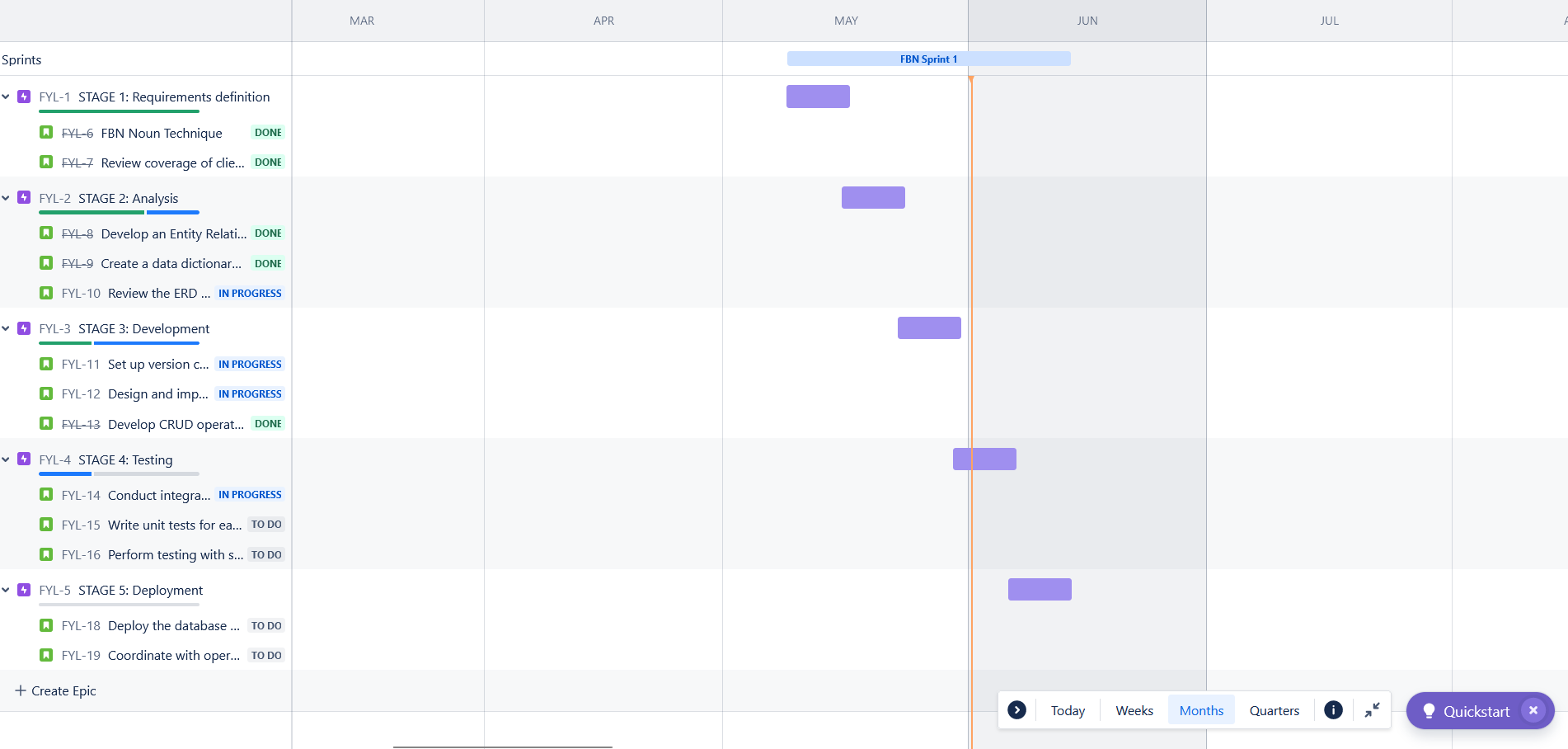
**STAGE: Testing**

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|  | **Tool(s) Used** | **Purpose** | **Timings** | **Output** |
| Conduct integration testing to verify that all components work together | MySQL | Ensure that the database and CRUD operations function correctly when integrated | Week 2 - 3 | Testing  Log Reports |
| Write unit tests for each CRUD operation to ensure individual components function correctly | MySQL | Validate that each CRUD operation performs as expected | Week 4-5 | Testing  Log Reports |
| Perform testing with client to validate system | MySQL | Ensure that the system meets the client requirements | Week 5-6 | Final report |

**STAGE: Deployment**

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|  | **Tool(s) Used** | **Purpose** | **Timings** | **Output** |
| Deploy the database system to a testing environment for final validation and acceptance | MySQL | To validate the system in a real-world environment before production deployment | Week 5 - 6 | Deployed Testing Environment |
| Coordinate with operations team to deploy the system to production environment and ensure smooth transition | MySQL | Ensure that the deployment to production is seamless with no issues. | Week 6 | Production Deployment |

**JIRA EVIDENCE (Screenshots)**

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