**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: **Panagiotis Siokas**

Date: **22/05/2024**

Course: **Relational Databases**

Student Number: **ec2032429**

**Jira Project (Scrum Template):** **FastBurgersNow** Database Development

**Sprint Duration**: 6 weeks

**Scrum Master**: John Piperias

**Software Developer:** Panagiotis Siokas

**Software Tester**: Panagiotis Siokas

**STAGE 1: 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. | Start Data: 09/05/2024  End Date:  15/05/2024 |  |

**STAGE 2: 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. | Start Data: 16/05/2024  End Date:  22/05/2024 |  |
| **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. | Start Data: 16/05/2024  End Date:  22/05/2024 |  |

**STAGE 3: Design**

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|  | **Tool(s) Used** | **Purpose** | **Timings** | **Output** |
| Refine the ERD based on feedback and further analysis. | draw.io, Excel | Finalize the database design, ensuring data integrity, efficiency, and adherence to best practices. | Start Data: 23/05/2024  End Date:  29/05/2024 |  |
| Create a detailed data dictionary with data types, constraints, and validation rules. |  |
| Design normalization if needed (1NF, 2NF, 3NF). |  |
|  |  |

**STAGE 4: Implementation**

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|  | **Tool(s) Used** | **Purpose** | **Timings** | **Output** |
| Select a database management system (DBMS). | DBMS (e.g., MySQL), SQL editor | Construct the physical database structure according to the design | Start Data: 30/05/2024  End Date:  5/06/2024 |  |
| Design and establish tables, along with defining their relationships, within the chosen |  |
| Develop and run SQL scripts to set up the database schema. |  |
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**STAGE 5: Testing**

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|  | **Tool(s) Used** | **Purpose** | **Timings** | **Output** |
| Generate test data. | DBMS, SQL editor | Conduct comprehensive testing of the database to identify and resolve any issues before deployment. | Start Data: 06/06/2024  End Date:  12/06/2024 |  |
| Run test cases to validate data integrity and relationships |  |
| Test various SQL queries (SELECT, INSERT, UPDATE, DELETE, JOIN) to confirm accurate data manipulation. |  |
| Test for potential errors and edge cases. |  |

**STAGE 6: Deployment**

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|  | **Tool(s) Used** | **Purpose** | **Timings** | **Output** |
| Finalize the database schema. | DBMS, Deployment tools | Make the database available for use, ensuring a seamless transition from the development environment. | Start Date:13/06/2024  End Date:  20/06/2024 |  |
| Prepare deployment documentation (installation instructions, data migration plan) |  |
| Deploy the database to a production environment. |  |
| Monitor initial performance and make adjustments as needed. |  |

**JIRA EVIDENCE (Screenshots) A screenshot of a computer

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