

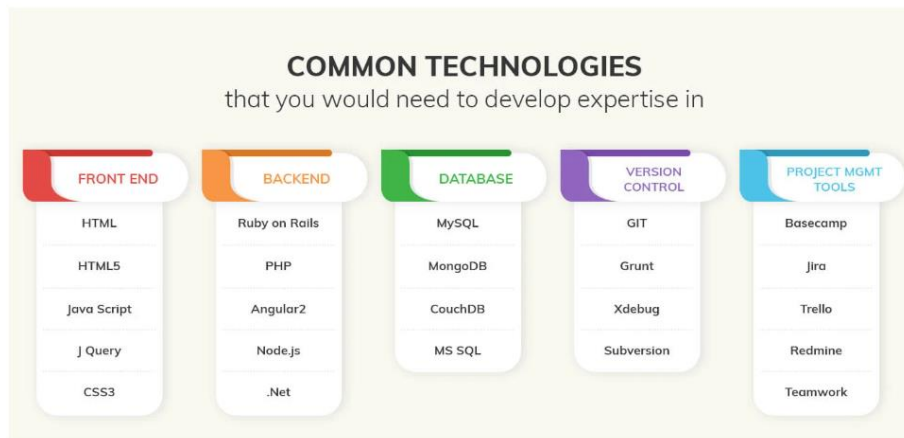
Week06 – (SCRUM) Project Development

Complete the following elements concerning the development of the project and guestimate some timings and the resources in the sense of the people involved in the build of that part.

The schedule ONLY provides the development of the backend database. It would be useful if you also included the stages that required you to build the following components:

1. Github
2. The front end (html)
3. The programming (php)
4. The testing (cypress)

Ref: <https://www.geeksforgeeks.org/what-is-full-stack-development/>



These should be integrated into the development cycle which is for the database. You are uniquely placed to understand the parts that require a full stack build and how merge these into a single coherent project.

Requirements Definition

Element	Tool(s) Used	Purpose	Timings	Resources
Define a set of requirements. Ideally 4 requirements drawn from a number of sources: e.g. interview of client, previous system, forms generated from previous system, receipts from transaction system	MS Word MS Teams	PROJECT MANAGER: This is through data gathering a way of eliciting and ensuring the requirements are correct. This forms the basis of the contract that will exist between you the developer and the client.	30/01/2023 – 01/02/2023 2 days	Project Manager

Analysis

Element	Tool(s) Used	Purpose	Timings	Resources
Form Design – create a series of mock forms to understand the front end of the system and how the user interacts with it.	MS Publisher	ANALYST / CLIENT: This is shared with CLIENT to demonstrate that you understand the elements that need building.		Analyst
HTML: Devise the CSS – suggest the style for the front end	Notepad++ Or any front end design tool			Analyst
Devise the ERD (Entity Relationship Diagram) – use appropriate logic to construct the ERD.	io.draw Alternatives: MS Visio LucidDraw	ANALYST: Mostly you are constructing this – so you can understand the database design.		Analyst
Data Dictionary – construct the tables and load all the attributes along with the relevant characteristics (data type, size, null/not null etc).	MS Excel Alternatives: Spreadsheets tool	ANALYST: Mostly you are constructing this – so you can understand the database design and quickly implement these.		Analyst

Design

Element	Tool Used	Purpose		
ERD Design – Develop the ERD on workbench and then relate the tables according to the logic used in the analysis (MS Visio).	MS Visio Or io.draw	DESIGNER: You are re-creating the design inside of workbench.		Designer
Build out the tables based on the data dictionary	Use SQL commands (DDL) - MySQL			
Prototype – construct a small-scale prototype to ensure the system works on a pilot level.	MS Access	DESIGNER / CLIENT: This is a quickfire build that is shared with CLIENT to demonstrate that you understand the product what needs building. Any alterations can be applied and back engineered to the previous elements.		Designer

STAGE: Development

Element (Task)	Tool Used	Purpose		
Table Build – use the Forward Engineer – complete the construction of the tables. Relate the tables using the “Designer” tool within MySQL.	MySQL (Xampp) Alternatives: UWamp Usbwebserver	DEVELOPER: You are transferring the design to an actual database.		Developer
Views - Construct the views – these should represent the views from the base tables.	MySQL (Xampp)	DEVELOPER / CLIENT: These are constructed according to the client’s requirements.		Developer
Test data – import data from excel. Ensure that the data is relating across from the view to the base tables.	Import: Use SQL prompt and obtain data to fit with Chat GPT MS Excel and SQLizer https://sqlizer.io/	DEVELOPER: You are entering the data to ensure it can hold and manipulate the data correctly, called VALIDATION.		Developer
Queries – devise a few queries based on typical user/admin/counterperson needs. Ensure some joins between views are working correctly.	MySQL (Xampp)	DEVELOPER / CLIENT: These are constructed according to the client’s requirements.		Developer

STAGE (EPIC): Implementation

Element (Task or Issue)	Tool Used	Purpose		
Use of a better interface to assist the administrator actions.	Webstorm	To develop the administrator environment that the administrator will use when operating the system.		Programmer
Report Generation and Statistics	Excel Power BI	To do the reports for the manager		Data Scientist

Exercise:

1. JIRA Scrum plan – that will show you the full cycle over a 4 week period
2. Create the roles identified above in the column called “resources”
3. Give some nominal timings for each part. Therefore for each part divide the 4 weeks = 20 days (not including weekends) – so each task has a an equal amount of time.

Note: This is NOT realistic, but the exercise is about gaining a familiarity with the development cycle, use of scrum and understanding how a project is conducted using small teams.