CS3203 In-class Activities:

SDLC & PM

**SDLC-1. SPA**

For each iteration of your SPA project, it is advisable to choose the Iterative and Incremental SDLC and have mini iterations within each iteration. Create a development plan based on this SDLC for Iteration 1. You may refer to Basic SPA Requirements in the GITHUB Wiki.

**What are the advantages of this SDLC for your CS3203 project?**

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|  | **Mini-Iteration 1** | |
| **Week 2** | **Week 3** |
| Parser |  |  |
| PKB |  |  |
| Query Preprocessor |  |  |
| Query Evaluator |  |  |
| Testing |  |  |
| Documentation |  |  |

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|  | **Mini-Iteration 2** | |
| **Week 4** | **Week 5** |
| Parser |  |  |
| PKB |  |  |
| Query Preprocessor |  |  |
| Query Evaluator |  |  |
| Testing |  |  |
| Documentation |  |  |

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|  | **Mini-Iteration 3** | |
| **Week 6** | **Recess Week** |
| Parser |  |  |
| PKB |  |  |
| Query Preprocessor |  |  |
| Query Evaluator |  |  |
| Testing |  |  |
| Documentation |  |  |

**PM-1. Project Management Tools**

Compare and contrast the following Project Management tools (pick any 3 of them) on the following features.

Tools:

* Trello - <https://trello.com/>
* Asana - <https://asana.com/> (free trial only)
* GitHub issues/projects - <https://github.com/>
* Google Calendar
* Basecamp - <https://basecamp.com/>
* Your preferred PM tool

Features:

1. Creating a project
2. Adding tasks/milestones with deadlines
3. Adding people to the project
4. Assigning tasks to different team members
5. Integrating your third-party application usage, such as Google Drive, Dropbox, GitHub, WhatsApp, Telegram
6. Discussing among team members referring to projects, tasks, etc.
7. Other useful features (if any)

a) Write your comments on each feature of each tool in the table below:

|  |  |  |  |
| --- | --- | --- | --- |
| Features | (Name of the 1st tool) | (Name of the 2nd tool) | (Name of the 3rd tool) |
| Project Creation |  |  |  |
| Adding tasks / Milestones |  |  |  |
| Adding people |  |  |  |
| Assign tasks |  |  |  |
| Integration with other apps |  |  |  |
| Discussion among members |  |  |  |
| Other useful features |  |  |  |

b) Which tool will you use and why?

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**PM-2 and SDLC-2 are based on following description.   
  
Mobile App Front-end for a Car Transportation System**

Consider that you are developing a mobile app front-end for a car transportation system similar to Grab, called 3203-GRAB.

You are to plan the development of the whole project i.e. mobile app and server side. By using the mobile app, drivers can register their car and indicate their availability, while users can request and book rides. The server side has the storage component (database), and some of the logic. You are expected to release the first version with basic features as soon as possible.

**PM-2.** If you are starting this project from scratch, what will you do in each of the 6 phases of the project life cycle?

Write the tasks into the table below. Be specific and relevant with respect to the writeup as much as possible.

|  |  |
| --- | --- |
| **Phase** | **Tasks** |
| Initiation |  |
| Definition |  |
| Planning |  |
| Implementation |  |
| Deployment |  |
| Closing |  |

**SDLC-2.** Which SDLC would you use if you are to 1) you start development from scratch, or 2) buy an existing system?

**For the first scenario (starting from scratch), write your comments on each SDLC for each scenario in the table below:**

|  |  |  |
| --- | --- | --- |
| Waterfall | Iterative and Incremental | Any other SDLC you are familiar with |
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**Which SDLC will you choose for this scenario and why?**

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**For the second scenario (buying an existing system), write your comments on each SDLC in the table below:**

|  |  |  |
| --- | --- | --- |
| Waterfall | Iterative and Incremental | Any other SDLC you are familiar with |
|  |  |  |

**Which SDLC will you choose for this scenario and why?**

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**SDLC-3. Compiler for C/C++**

Consider that you need to implement a compiler for C/C++. Which Software Development Life Cycle (SDLC) would you use? Justify your choice, and start your planning. Try to sketch a timeline, to assess what manpower and technical resources are needed for this project.

(Hint: Focus on the nature of the project to decide which SDLC should be used. Do not go into too many details about the components of the compiler and the steps of the compilation process.)

**Write your comments on each SDLC for this scenario in the table below:**

|  |  |  |
| --- | --- | --- |
| Waterfall | Iterative and Incremental | Any other SDLC you are familiar with |
|  |  |  |

**Which SDLC will you choose for this scenario and why?**

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**Sketch a timeline and comment on the resource requirements for this project.**

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