TASK 62C

Estimation Accuracy

SWE30010 - Managing IT Projects

Class: Fri 08:00 DT7.2 **- Tutor:** Pham Thi Kim Dung

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Evidence of the effort

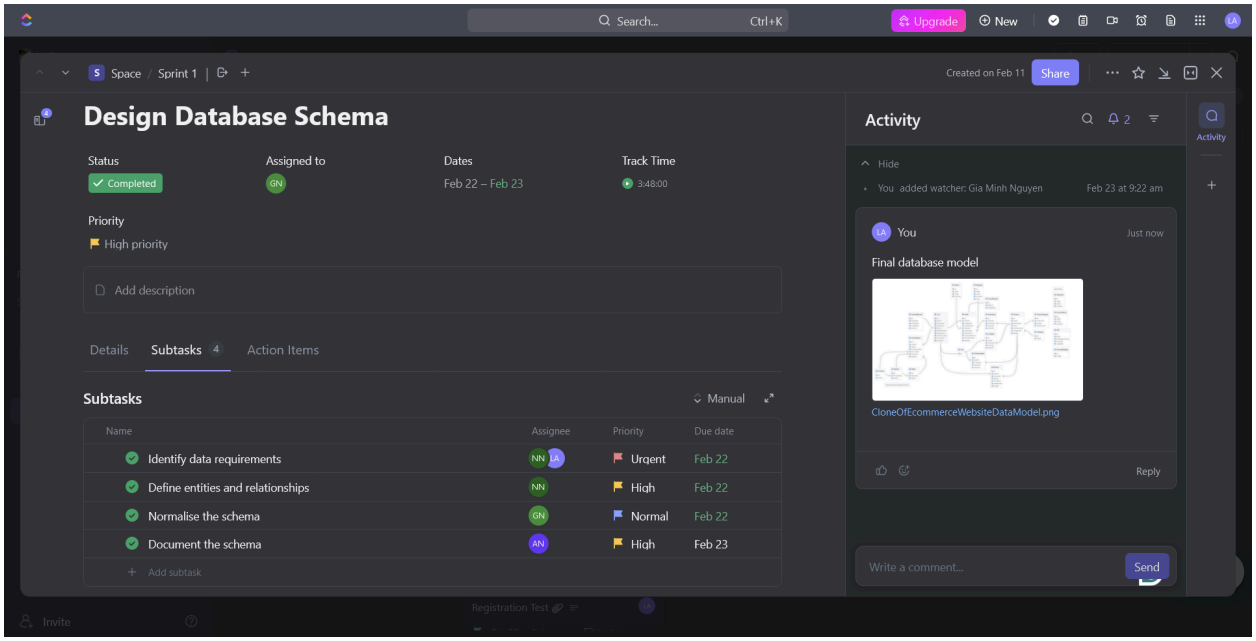

Figure 1: Time tracked for backlog item using ClickUp

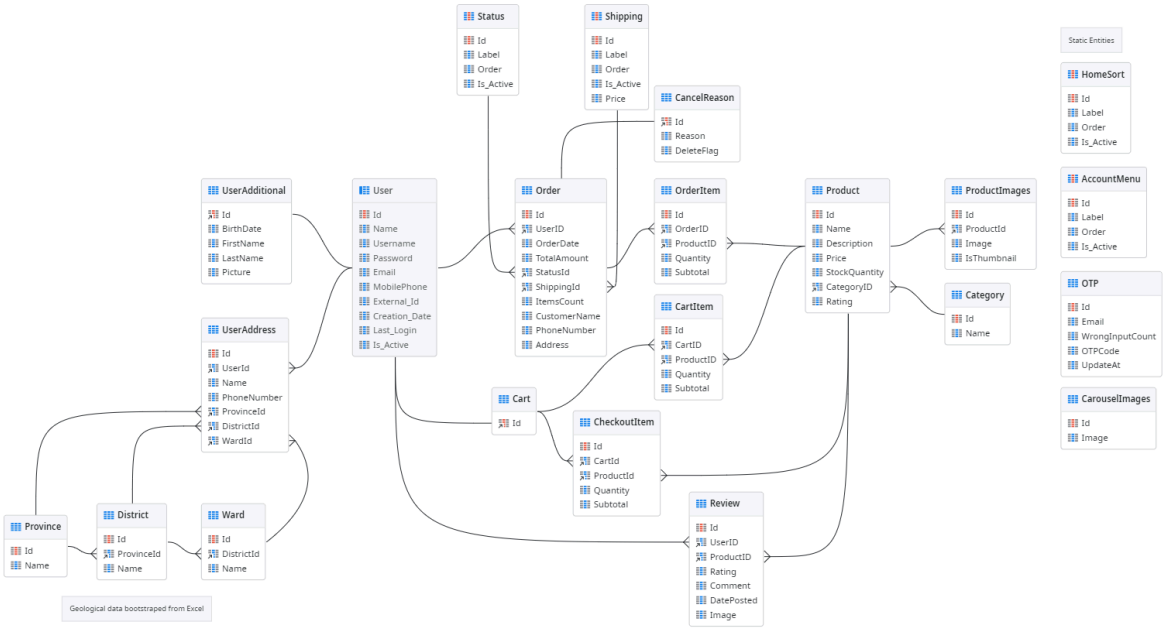

Figure 2: Final database model

Reflection and Analysis

Overview

The purpose of this document is to reflect and analyse the accuracy of effort estimation for the "Design Database Schema" backlog item in sprint 1 compared to the actual time spent tracked using ClickUp (a project management software similar to Jira). In Credit Task 61C, I estimated the team effort required for this task to be 4 hours. Upon completing the task in Sprint 1, the actual time tracked was 3 hours and 48 minutes. My initial estimation was only **6.7% higher** than the actual effort spent, falling within the 10% acceptable range this task requirement set. The percentage indicates a relatively accurate estimation beforehand compared to the actual work.

Reasons for achieving accuracy

1. **Detailed and well-planned WBS**: By creating a detailed Work Breakdown Structure (WBS), the selected task was systematically broken down into more minor, manageable small components. This approach facilitated an accurate assessment of time for each smaller sub-task. Each subtask of the database schema design process was outlined to mitigate the chance of oversight or underestimation of time.
2. **Multifacet factor consideration**: The estimation task considered various factors that could affect the complexity and time of each task and sub-task. Some examples include complexities associated with different data types and media files, security measures implementation, and schema documentation were all taken into consideration. By acknowledging these factors beforehand, the estimation process incorporated extra time to accommodate difficulties, ensuring the effort required is accurately reflected in the estimation effort and time.
3. **Realistic estimation approach**: Instead of relying on arbitrary data or "pure guessing" approaches, the method implemented was practical. Time and effort estimates were carried out using the team's collective experience, data analysis, and insightful understanding of the team's strengths and weaknesses. The implemented approach considered the team's familiarity with the database schema and best practices in database development. The accuracy of the projections and estimates increased overall by leveraging data and insights.
4. **Proactive communication and clarification**: Actively seeking clarification and communicating effectively throughout the working process contributed heavily to the accurate estimation. Engaging in early conversations with stakeholders to clearly understand their specific data usage helped avoid additional out-of-scope requirements in the development process. The team also exchanged clarifying questions about the data stored, its sources, and additional complexity to ensure our understanding of the system. Teamwork and collaboration have leveraged individual expertise and collective

knowledge as we received constructive feedback for potential oversights or further refinement.

Maintaining accuracy in future tasks

From this success, continuous improvement will be implemented, with my detailed plan to refine future task effort estimations.

1. **Time tracking for sub-tasks**: Track time for smaller tasks within the WBS can provide more accurate data for future estimation.
2. **Improve complexity assessment**: Improve the skills and ability to identify and consider potential complexities impacting the actual effort.
3. **Active collaboration and communication**: The key to teamwork estimation is to discuss with team members during estimation meetings for different perspectives and collective insights.
4. **Historical data analysis**: Leveraging past project records and task complexion times to create informed decisions for future tasks.
5. **Utilising project management and estimation tools**: With the help of existing project management tools like Jira and ClickUp, these tasks can be executed automatically or manually with high accuracy and auto-generated reports when a sprint is completed.

Conclusion

The "Design Database Schema" task estimation within the permitted range shows a respectable degree of accuracy. I am confident that implementing the suggested changes will enhance my estimation abilities and the team’s effectiveness even more and reliably complete tasks within the allotted time in subsequent tasks and sprints.