CSE 563 Project Report Number 5

Team 19

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1. High-Level Overview

1.1. Problem to be solved

- Lengthy and Inefficient Planning Poker Sessions
    - Planning Poker sessions are excessively long, leading to inefficiencies.
    - Difficulty in accessing personal repositories and identifying relevant user stories.
    - Challenges in rapidly adjusting weights for relevant user stories during sessions.
- Need for Enhanced Estimate Precision
    - Requirement for precise estimates based on historical data.
    - Variation in estimates causing a need for frequent weight adjustments.
- Requirement for Consensus and Secure Data Handling
    - Need for a tool to facilitate faster consensus among developers.
    - Essential to secure confidential information regarding effort logged.

1.2. How the problem will be solved

1.2.1. EffortLogger V2

- Comprehensive Effort Tracking
    - Implementing a robust system for detailed effort tracking.
- Real-Time Data Collection
    - Facilitating immediate logging of efforts for up-to-date data.
- Data Integrity and Validation
    - Ensuring data quality through checks and user authentication.
- User-Centric Design
    - Developing an intuitive interface for consistent usage.
- Integration with Project Management Tools
    - Enhancing data consistency through seamless tool integration.

1.2.2. Planning Poker

- Historical Data Integration and Management
    - Utilizing historical data from EffortLogger V2 to inform planning poker sessions.
    - Enabling users to select and use relevant historical data for making informed decisions during planning poker sessions.
- Data-Driven Decision Making
    - Facilitating data-driven estimations based on historical user stories and weighted averages.
- Enhanced User Story Retrieval and Weight Adjustments
    - Efficient retrieval of user stories and dynamic adjustments of weights based on criteria.
- Collaboration and Stakeholder Engagement
    - Tools for efficient sharing of session statistics and facilitating consensus among team members.
- System Security and Responsiveness

    - Ensuring security and privacy of data with multi-factor authentication and encryption techniques.
    - Responsive design for compatibility across various devices to facilitate faster planning poker sessions.
- Documentation and Support
    - Providing comprehensive documentation and post-deployment support for users.
- Continuous Improvement
    - Incorporating continuous feedback and expanding the database for more historical data.
    - Integration of further stakeholder feedback and system enhancements based on user feedback

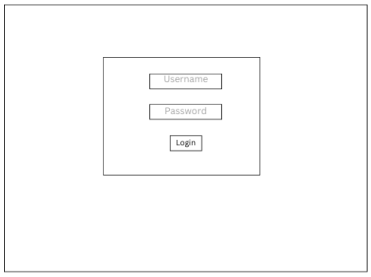
2. Storyboards: EffortLogger V2 and Planning Poker

EffortLogger V2 Storyboard 1

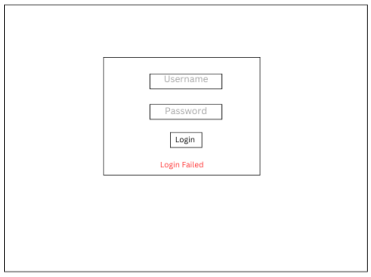
- Overview
  - The storyboard presents the EffortLogger V2 login page.
  - Users log in with their credentials.
  - Successful login allows users to enter project and user story details.
  - Users can begin tracking their efforts on a user story.
  - After finishing the story, users can stop tracking efforts.
  - Users can then return to the EffortLogger V2 homepage.
- Explanation
  - The user attempts to log in to the EffortLogger with a username and password.
  - If authentication fails, an error message prompts a retry.
  - After successful login, the user can input details about the project, user story, and effort description.
  - The user starts the activity, which initiates a running timer.
  - The timer continues until the user stops the activity with a stop button.
  - The logged effort is saved, and the user is redirected to the home page for new activities.

- Storyboard

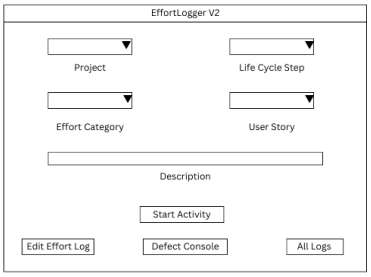
Login Phase



1. Login to EffortLogger V2 Tool

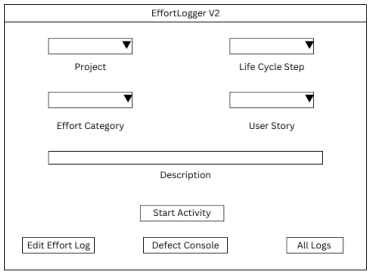


2.Login failure

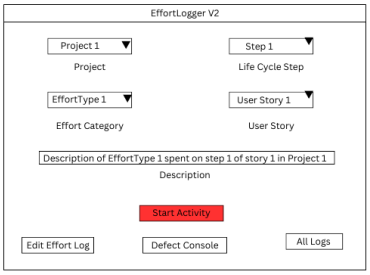


3.Home Page after login success

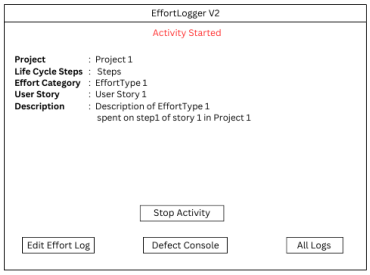
Effort Logging Phase



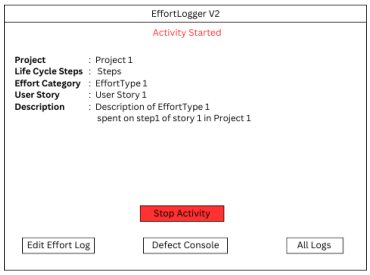
4. Select project and user story details from drop down
Add descriptions if necessary



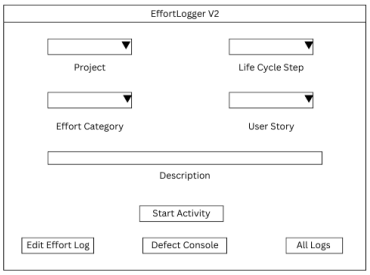
5.Start Activity button is pressed after all details are entered



6.Home Page after login success



7.After effort, user stops effort logging
by clicking on Stop Activity button



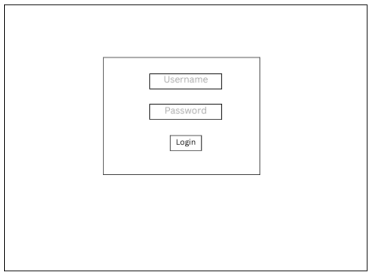
8.Goes back to Effort Logging Home Page

Planning Poker Storyboard 1

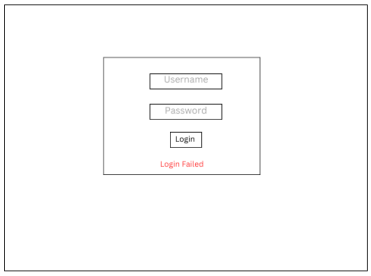
- Overview
  - The storyboard outlines the login and setup phase for the Planning Poker tool.
  - Users must log in using their credentials.
  - After logging in, they can initiate a new planning session.
  - The session begins by loading the user's historical data on the screen.
  - Data is displayed in ascending order of story points.
  - With the data presented, the user commences the estimation process.
- Explanation
  - The user attempts to log in to the Planning Poker tool with their username and password.
  - If login fails, an error prompts the user to try again.
  - Once successfully logged in, the user can begin a new planning session.
  - The user's historical data is then displayed on the screen.
  - The user enters details such as the project name, user story, and additional descriptive keywords.

- Storyboard

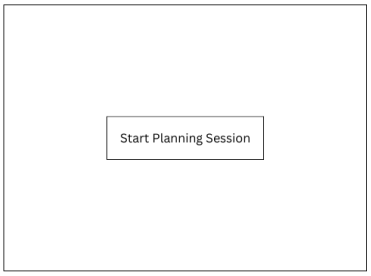
Login Phase



1. Login to Planning Poker Tool

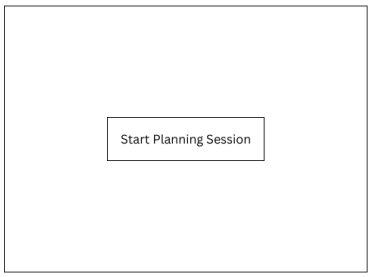


2. Login failure

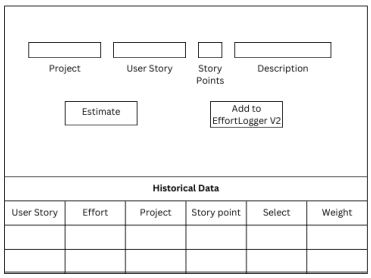


3. Home Page after login success

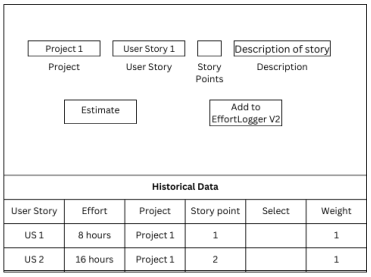
Setup Phase



4.Start Planning activity



5.Load all historical data



6.Enter project, user story and description details

Planning Poker Storyboard 2

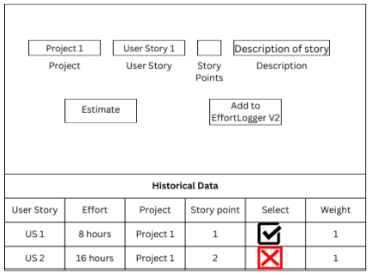
- Overview
    - The storyboard visualizes the effort estimation process within EffortLogger V2.
    - Users can pick user stories similar to the current one being discussed for comparison.
    - By clicking 'estimate,' the system calculates an estimate based on the historical data average.
    - In subsequent rounds, users may add or remove stories to refine the estimate.
    - Users can adjust the weight of selected stories for a more tailored estimate.
    - Any adjustments allow for a new estimation to ensure accuracy.
    - High or low estimates can be investigated by identifying the outlier stories, thanks to the data being sorted by story points.
    - Once there is agreement on the story points, this new data is added to EffortLogger V2, enhancing future estimations.
- Explanation
    - After adding project and user story details, the user initiates the estimation process by selecting relevant stories.
    - Users can adjust story weights or choose different historical stories for refined estimation.
    - Stories are organized by story points to easily spot outliers affecting the overall estimate.
    - Upon reaching a consensus on story points, these are entered into a text box.
    - The agreed story points can be saved to EffortLogger V2 for future reference and effort tracking.
    - The user has the option to proceed with the session for estimating new user stories.

- Storyboard

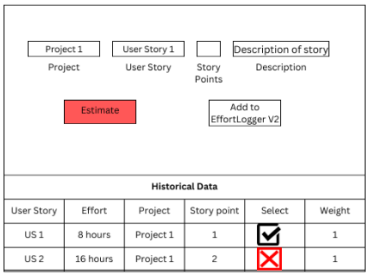
Team Project Report Number 4

Storyboards: EffortLogger V2 and Planning Poker

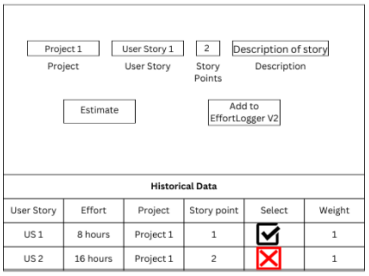
First Round



1.Remove irrelevant historical data

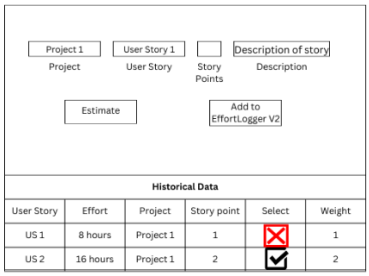


2.After selecting relevant items, user clicks estimate

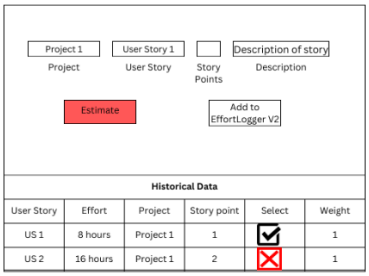


3.Display estimated story points

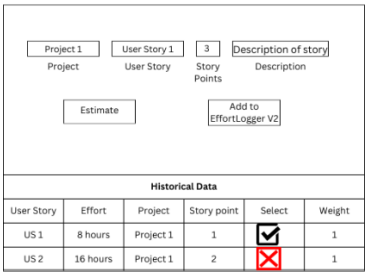
Subsequent Rounds



4.After discussions, historical data can be added or removed, weights can be adjusted

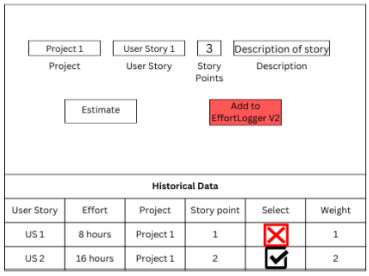


5.After selecting relevant items and adjusting weights, user clicks estimate

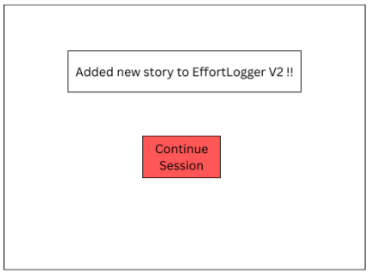


6.Display estimated story points

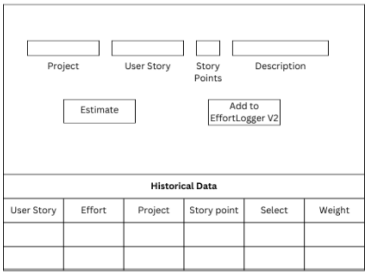
Finalization Phase



7.After consensus is reached, the data can be added to EffortLogger V2



8.After data is added to EffortLogger V2, user can continue current planning session



9.User can continue the effort estimation activity

3. User Stories: Planning Poker

3.1. As a user, I want to login to my Planning Poker tool, so that my identity is verified

- **The users want to keep the planning poker tool secure**
- **Having a login with username and password system will keep the application secure**

3.2. As a user, I want to see my historical project data from EffortLogger V2 database, so I can make data-driven estimates of user stories

- **The users want to see their historical project data from EffortLogger V2 database**
- **This will include details about previous user stories**
    - **Name, description and project name**
    - **Predicted and actual story points**
- **The historical data will help the user make better estimates for the current user story in discussion**

3.3. As a user, I want to narrow down my historical data, so I can make better estimates

- **The user should be able to select relevant stories from the list of historical data**
- **The criteria to narrow down stories will be decided by the user after discussion with the team**

3.4. As a user, I want to be able to adjust the weights of relevant historical data, so I can control the contribution from previous stories

- **The user should be able to increase or decrease the weights of historical data**
- **For relevant items which are identical to user story being discussed, weights can be increased**
- **For relevant items which are different from the user story being discussed, weights can be decreased**

3.5. As a user, I want to the planning poker tool to calculate the weighted average of historical story points, so I can quickly see the estimated story points

- **The calculation of weighted average should be done by planning poker tool based on user provided weights**
- **Reduces the manual estimation time**
- **Allows for more accurate story point estimation**

3.6. As a user, I want to update the user story details before saving to the database, so that the stored data is revised and finalized for future use

- **The user story name, description and story points should be editable**
- **Helps the user to finalize the details before saving to database for future use**

3.7. As a user, I want to store the user story details in the EffortLogger V2 database, so it can be used for future estimation activities

- **Allows the user to save the user story result to a database maintained by EffortLogger V2.0**
- **Makes logging effort towards user story easier for the user**

4. Requirements: Planning Poker

4.1. Planning poker tool shall provide historical project data performed by the user[1]

- **Provide data from the database maintained by EffortLogger V2**
- **Data provided by the database maintained by EffortLogger**
    - **Project name the user story belongs to**
    - **User story name**
    - **User story descriptive keywords**
    - **User story predicted and actual story points**
- **Shall provide users with easy access to data**
    - **User stories and project data**
- **Allows users to decide which projects and user stories are relevant**
    - **Allows data-driven decision making**

4.2. Planning poker tool shall produce a weighted average of the story point for estimation[1]

- **Updating weights of user stories for story point estimation takes too long**
    - **The old update process was manual and time-consuming**
- **Customer needs a quick way to narrow the historical user story data**
    - **Should easily view relevant ones**
- **Facilitate data-driven estimation**
- **Allows for more accurate story point estimation**
- **Also mentioned during Dr. Lynn Robert Carter 11/1 discussion and lecture**

4.3. Planning poker tool shall allow users to narrow down to relevant historical projects[2]

- **Customer wants to narrow down the list of their historical projects to only relevant subset**
    - **Relevancy based on user-defined criteria**
    - **Also mentioned on Page 1 EffortLogger User Input 2023-08-11 Document**
    - **User defines criteria based on in-person discussion with team**

4.4. Planning poker tool shall allow users to increase and decrease weights of relevant items[2]

- **Weights are how similar the historical user story or project is to the new user story**
- **For items or user stories that are identical to the user story being estimated**
    - **Contribution increases from 100% to 200%**
- **For items or user stories that are different from the user story being estimated**
    - **Contribution decreases from 100% to 50%**

4.5. Planning poker tool shall allow users to update keywords and story points before saving[2]

- **Helps with finalization activities**
- **Gives users to change descriptive keywords and estimated story points**
- **User can do this before saving and storing results for future use**

4.6. Planning poker tool shall store the results in a database for future use in EffortLogger V2[2]

[1] Customer Representative Dr Lynn Robert Carter 9/20 class interview
[2] Dr. Lynn Robert Carter 11/1 discussion and lecture

- **Makes process easy for users when asked to implement user story**
- **Allows the user to save the user story result to a database maintained by EffortLogger V2.0**
    - **EffortLogger V2.0 on the user desktop**
    - **Makes logging effort towards user story easier**

4.7. Planning poker tool shall provide security and privacy by allowing only the user access[3]

- **Employees have concerns about mishandling personal data**
    - **Concerned about data being obtained by the wrong people**
    - **Concerned about data being misused**
- **Tool on the user's personal device**
- **Tool isn't a web application and used during in-person planning poker session**
    - **Provides security and privacy of the user's data by restricting access to user's personal device**
- **Additionally expressed as concerns by Dr. Lynn Robert Carter[1]**

4.8. Planning Poker app shall provide authentication to ensure security and privacy

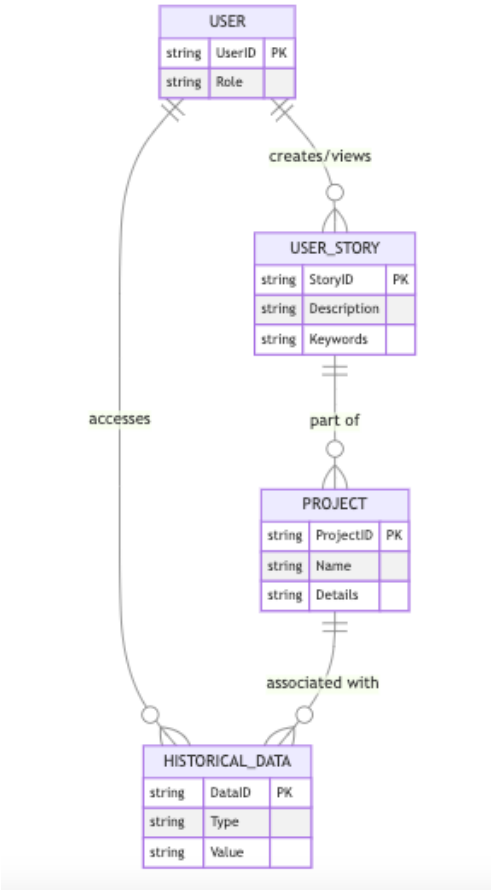
- **The application provides authentication using a username and password**
- **Rationale:**
    - **Employees are worried about unauthorized access and misuse of personal data**
        - **want their data to be secured from malicious actors**
- **Derived to support employee concern for security and privacy**
- **Referenced received requirement:**
    - **4.6. Planning poker tool shall provide security and privacy by allowing only the user access**

[3] Page 1 EffortLogger User Input 2023-08-11 Document

5. Architecture

5.1. Architectural View 1: Viewing Historical Data

5.1.1. The View Diagram



5.1.2. View Description

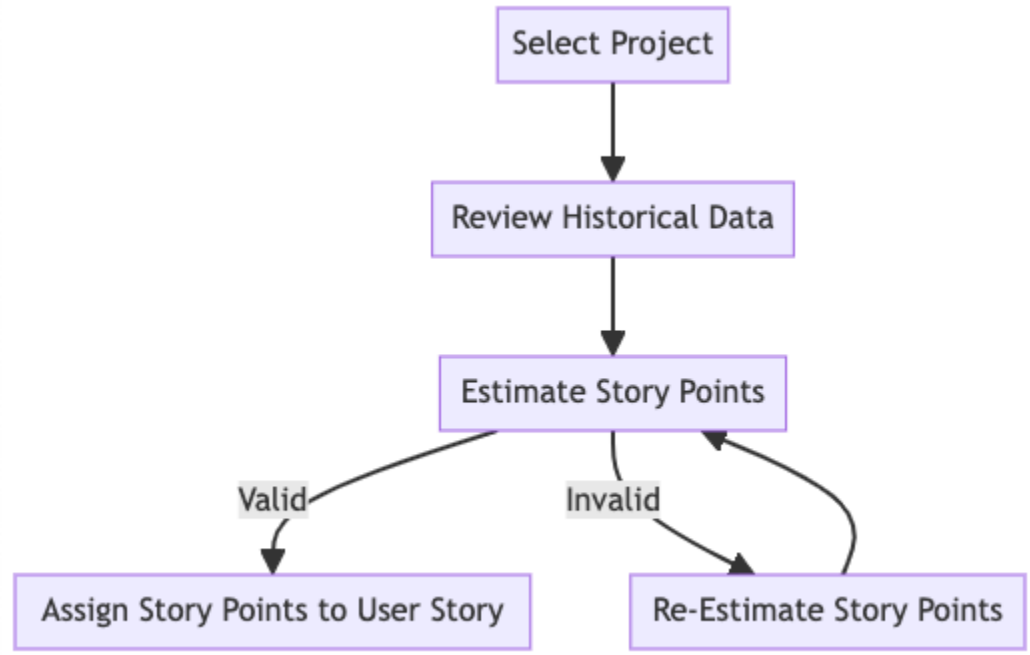
- Access to historical project data for users.
- Capability to add project and user story details.
- Supports detailed descriptions and keywords for enhanced searchability.

5.1.3. Why it is Architectural Significant

- Enables informed and precise project planning.
- Enhances project tracking and historical data utilization.
- Aids in tailoring project details for specific user needs.

5.2. Architectural View 2: Project Selection and Story Points Estimation

5.2.1. The View Diagram



5.2.2. View Description

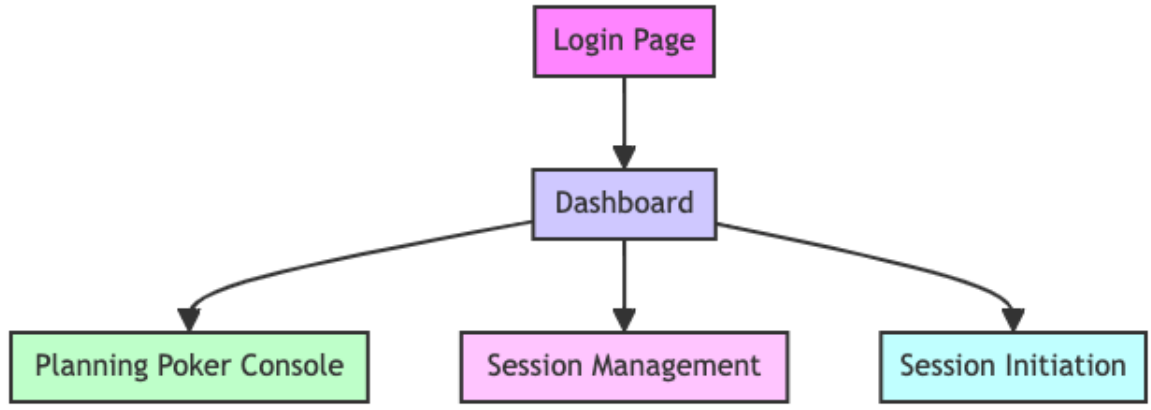
- Leverages historical data for story point estimations.
- Informs project selection with past project data.
- Enhances accuracy in story estimation processes.

5.2.3. Why it is Architectural Significant

- Facilitates precise and data-driven project estimations.
- Improves project planning efficacy.
- Reduces estimation errors by leveraging historical insights.

5.3. Architectural View 3: User Interface Elements

5.3.1. The View Diagram



5.3.2. View Description

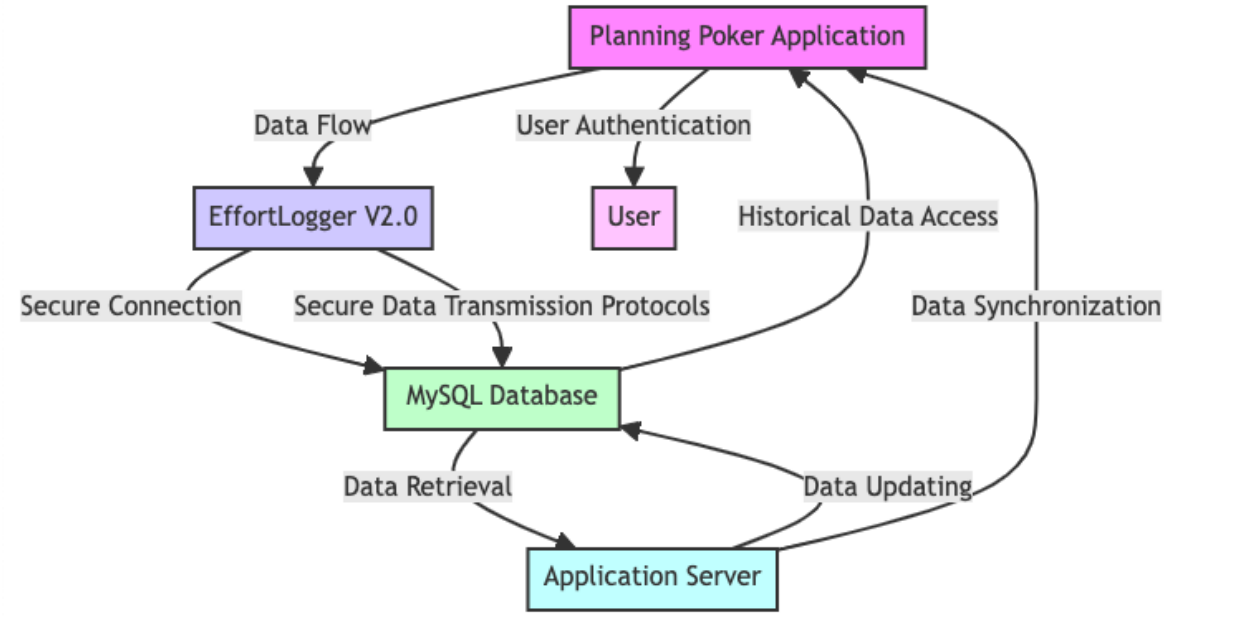
- Planning Poker console for managing sessions.
- Secure login interface for user authentication.
- Start interface for initiating planning poker sessions.

5.3.3. Why it is Architectural Significant

- Streamlines user experience with effective session management.
- Enhances security and user access control.
- Facilitates efficient initiation of planning poker sessions.

5.4. Architectural View 4: Database Connectivity

5.4.1. The View Diagram



5.4.2. View Description

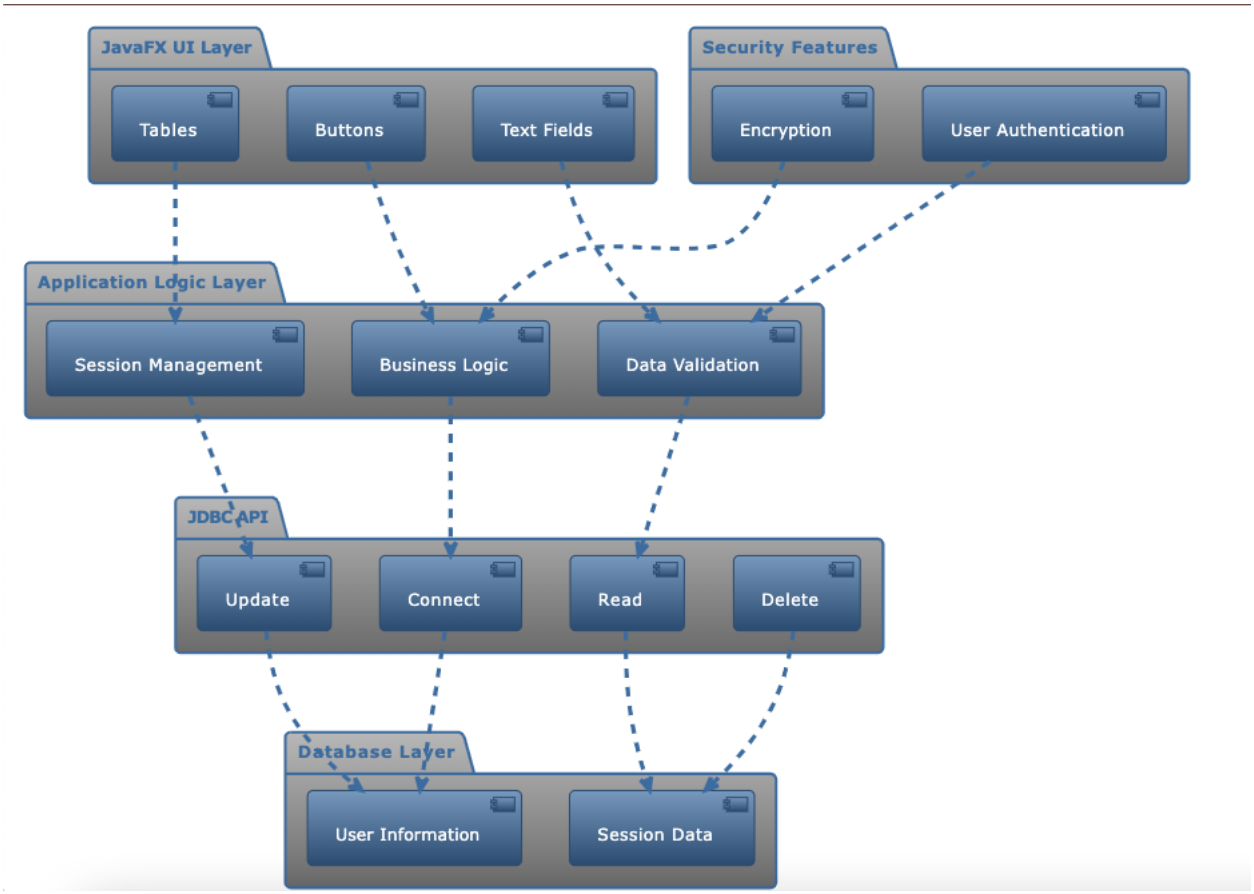
- Seamless user database connectivity.
- Integration with MySQL and EffortLogger V2.0.
- Ensures easy access to historical data.

5.4.3. Why it is Architectural Significant

- Guarantees uninterrupted data access.
- Crucial for real-time data retrieval and usage.
- Enhances data-driven decision-making in project planning.

5.5. Architectural View 5: Reuse of JavaFX and Java Database Connectivity APIs

5.5.1. The View Diagram



5.5.2. View Description

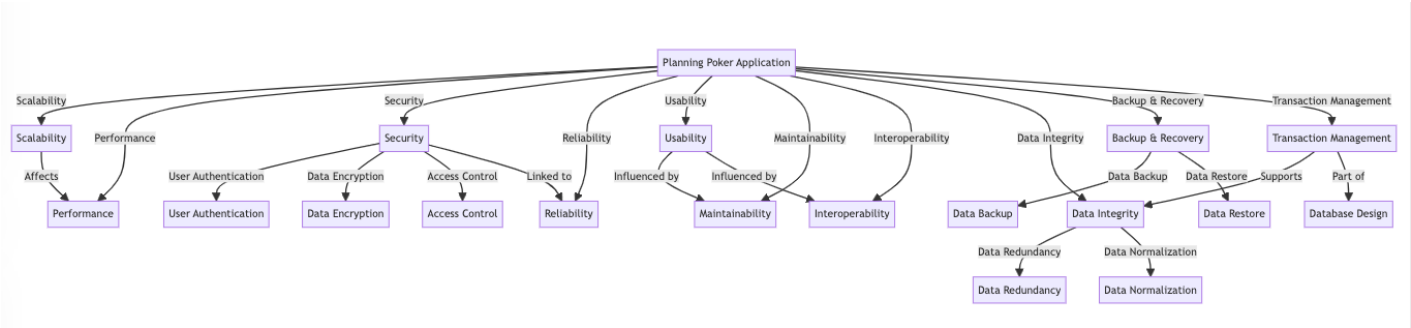
- Utilization of JavaFX for UI development.
- Java Database Connectivity for database interactions.
- Focus on security and application functionality.

5.5.3. Why it is Architectural Significant

- Ensures a robust, secure, and functional application.
- Facilitates effective application prototyping.
- Addresses core software development concerns.

5.6. Architectural View 6: Architectural Views and Quality Attributes

5.6.1. The View Diagram



5.6.2. View Description

- Includes various security mechanisms.
- Focuses on system scalability and performance.
- Prioritizes data integrity, redundancy, and consistency.
- Emphasizes backup, recovery, and transaction management.

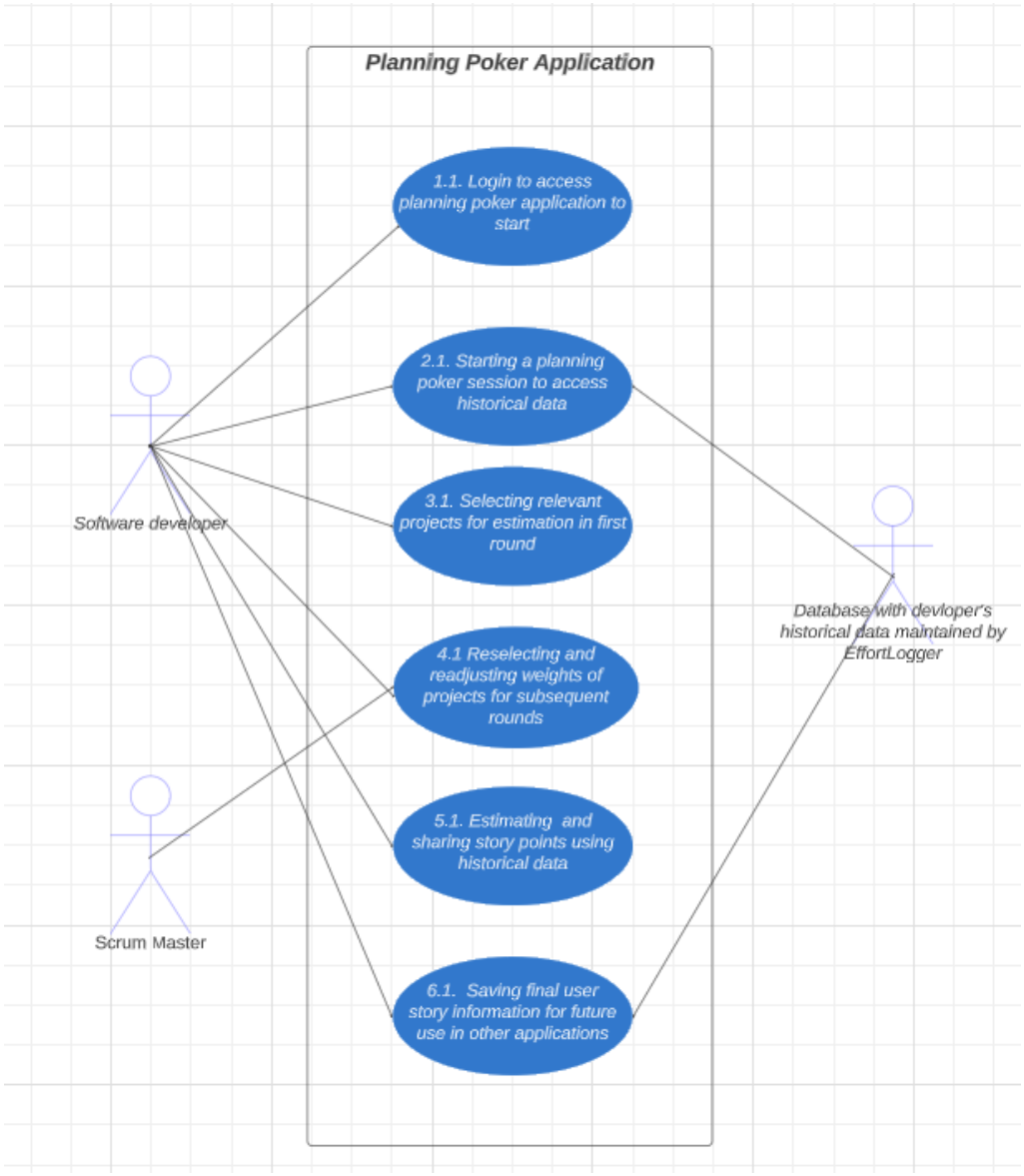
5.6.3. Why it is Architectural Significant

- Ensures system reliability and security.
- Guarantees system adaptability and efficiency.
- Critical for maintaining data accuracy and system integrity.
- Supports system sustainability and operational consistency.

6. Use Case Diagram and Use Cases

6.1. Use Case Diagram

6.1.1. The Diagram



6.1.2. Brief Description

- **Primary actors**
  - **Software developer and scrum master**
  - **Software developer is the initiator for all use cases**
  - **Scrum master is only the initiator for subsequent rounds**
- **Secondary actors**
  - **Database with user's historical data maintained by EffortLogger**
  - **Only participates in use cases involved with finalization and setup use cases**
- **Composed of six use cases**
  - **Use Case 1.1**
    - **Login to access the planning poker application**
    - **Logging into the planning poker tool requires the user to enter valid credentials**
  - **Use Case 2.1**
    - **Setting up a planning poker session to access user historical data**
      - **Provide easy access to data during planning poker sessions**
  - **Use Case 3.1**
    - **After listening to a description of the user story**
      - **User can select relevant projects before estimation**
  - **Use Case 4.1**
    - **When the high and low story point estimates are too large**
      - **User can reevaluate their selection of projects**
        - **Reselect or remove user stories and projects**
        - **Provide weights to have data contribute more or less**
  - **Use Case 5.1**
    - **When a relevant subset of the project or user story data is selected**
      - **User can make the application generate a story point estimate**
      - **Allows selecting and sharing a planning poker card**
  - **Use Case 6.1**
    - **When user can come to a consensus with the team on the story point**
      - **User can save the new user story to their personal database**

6.2. Use Case 1.1

6.2.1. Brief Description

- **Describes the secure login process of using the Planning Poker application**
- **Software developers are the primary actors**
  - **Wants to use username and password**
    - **To securely log into the Planning Poker application**
    - **To authenticate the user**
- **Authentication gives users access to use Planning Poker application**
  - **Helps solve security and privacy requirements and need**

6.2.2. The Use Case

Use Case ID:	**1.1.**		
Use Case Name:	**Login to access planning poker application**		
Traceability:	**4.7. Planning Poker app shall provide authentication to ensure security and privacy**		
Created By:	**Team 19**	**Last Updated By:**	**Team 19**
Date Created:	**11/10/2023**	**Date Last Updated:**	**11/10/2023**

Actor:	**Software developer is primary actor**
Description:	**As a software developer who wants to start a planning poker session, I want to use username and password to securely log into the planning poker application**
Preconditions:	**1. The User must have a password to log into the system** **2. The user must have a username to log into the system**
Postconditions:	**1. User is logged into the planning poker app** **2. The user's identity has been authenticated** **3. The user has access to the planning poker application** **4. The user can start a planning poker session**
Primary Pathway:	**1. The Software developer is presented with a login screen.** **2. The software developer enters the username and password to the application.** **3. The planning poker application verifies the credentials** **4. A software developer is logged into the planning poker tool**
Alternate Pathways:	**1.1.AP.1. Incorrect credentials** **1. The Software Developer enters the incorrect credentials to the application.** **2. Planning poker application denies access to the app** **3. The planning poker application lets the user reenter credentials to log**
Exception Pathways:	**1.1.EP.1. System crashes** **The planning poker tool will be closed**
Notes and Issues:	**NA**

6.3. Use Case 2.1

6.3.1. Brief Description

- **Describes setup process for a planning poker session**

- **Describes the setup activity of planning poker**
- **Allows access to user's historical data**

- **Software developer is the primary actor**
  - **Wants easy access to historical data**
- **Database maintained by EffortLogger V2.0 is the secondary actor**
- **Provides user and application with access to their historical data**

6.3.2. The Use Case

Use Case ID:	**2.1**		
Use Case Name:	**Setting up a planning poker session to access historical data**		
Traceability:	**4.1. Planning poker tool shall provide historical project data performed by the use**		
Created By:	**Team 19**	**Last Updated By:**	**Team 19**
Date Created:	**11/10/2023**	**Date Last Updated:**	**11/10/2023**

Actor:	**Software developer is the primary actor** **Database maintained by EffortLogger V2.0 is the secondary actor**
Description:	**As a software developer who wants to start estimating new user stories, I want to start a planning poker session with access to historical data.**
Preconditions:	**1. User has to have the planning poker application started** **2. The user has been authenticated by application** **3. The user has to be in an in-person meeting with team members** **4. The user must be working on a new project** **5. Users must have access to a collection or database of their historical user stories and project** **6. The user has details about the new project name** **7. The user has a description of the current user story they want to estimate** **8. The product owner has a user story that needs to be discussed**
Postconditions:	**1. User has access to previous projects they've worked on** **2. User has access to previous user stories they've worked on** **3. User has the option to select relevant projects and user stories** **4. Planning poker application has details about** **a. The current project and user story user**

Primary Pathway:	**1. Software developer clicks a button to start a new planning poker session.** **2. The application connects to the user's database maintained by an EffortLogger application** **a. Contains their historical projects and user stories.** **3. The application imports the collected historical data** **4. The application presents data to the user in a table.** **5. The developer enters project details into the application** **a. The new project and user story** **6. The information entered includes a project name and description of the user story**
Alternate Pathways:	**NA**
Exception Pathways:	**2.1.EP.1. System crashes** **The planning poker tool will be closed**
Notes and Issues:	**NA**

6.4. Use Case 3.1

6.4.1. Brief Description

- **Describes starting first planning poker round to start estimating user stories**
  - **Describes the first round of planning poker activity**
    - **Mainly selecting a relevant set of projects**
- **Software developer is the primary actor**
  - **Wants to start the first round of planning poker session**
  - **Wants to select relevant project and user story subset**
- **Used during story point estimation**

6.4.2. The Use Case

Use Case ID:	**3.1**		
Use Case Name:	**Selecting relevant projects for estimation in the first round**		
Traceability:	**4.1. Planning poker tool shall provide historical project data performed by the user** **4.3. Planning poker tool shall allow users to narrow down to relevant historical projects**		
Created By:	**Team 19**	**Last Updated By:**	**Team 19**
Date Created:	**11/10/2023**	**Date Last Updated:**	**11/10/2023**

Actor:	**Software developers are the primary actors.**
Description:	**As a software developer who has set up a planning poker session, I want to start the round of planning poker to decide which projects and user stories are relevant to the user story being discussed.**
Preconditions:	**1. User must be authenticated by the application** **2. The user must have set up the planning poker session in the application** **3. Planning poker application must have access to the user's historical data** **4. User has access to their historical user story and project data** **5. The user must be in an in-person discussion or meeting with team members** **6. The product owner has a use story that needs to be discussed**
Postconditions:	**1. User has selected relevant projects and user stories to start story point estimation** **2. Application has information on relevant projects and user stories to start story point estimation**
Primary Pathway:	**1. Software developer listens to a description of the user story to get a better understanding** **2. Developer is shown a list of their projects and user stories** **3. The developer examines historical projects provided by app** **4. The developer indicates which projects aren't relevant in the app** **5. Planning poker application has information on which projects are relevant**
Alternate Pathways:	**NA**
Exception Pathways:	**3.1.EP.1. System crashes** **The planning poker tool will be closed**
Notes and Issues:	**If the user has no relevant project data, the user shouldn't use the application for estimates.**

6.5. Use Case 4.1

6.5.1. Brief Description

- **Describes continuing subsequent planning poker rounds to reach story point consensus**
  - **Describes subsequent planning poker rounds activity**
- **Software developer is the primary actor**
  - **Noticed a large discrepancy between the high and low estimates**
  - **Wants to start another round of planning poker**
- **Edit weights and subset to fix estimated story point and come to a consensus**

6.5.2. The Use Case

Use Case ID:	**4.1**		
Use Case Name:	**Reselecting and readjusting weights of projects for subsequent rounds**		
Traceability:	**4.1. Planning poker tool shall provide historical project data performed by the user** **4.3. Planning poker tool shall allow users to narrow down to relevant historical projects** **4.4. Planning poker tool shall allow users to increase and decrease weights of relevant items**		
Created By:	**Team 19**	**Last Updated By:**	**Team 19**
Date Created:	**11/10/2023**	**Date Last Updated:**	**11/10/2023**

Actor:	**Software developers are the primary actors.**
Description:	**As a software developer who has noticed a large discrepancy between the high and low estimates of the team, I want to start another round of planning poker to edit my estimated story point and come to a consensus.**
Preconditions:	**1. First round of planning poker is completed** **2. The user must be authenticated by application** **3. The user must have set up the planning poker session in the application** **4. Planning poker application must have access to the user's historical data** **5. User has access to their historical user story and project data** **6. The user must be in an in-person discussion or meeting with team members** **7. Team members and user in session have shared their estimated story points** **8. The highest and lowest estimates from the cards from the session have large discrepancies**
Postconditions:	**1. Projects and user stories from users are relevant to the discussion and new user story** **2. Projects and user stories from the user have appropriate weights based on user criteria** **3. The application has information on relevant projects and user stories to start story point estimation**

Primary Pathway:	**1. The developer reexamines historical projects and user stories** **2. The developer decides which projects or user stories need to be added or removed** **3. The developer reweights historical projects and user stories** **4. Planning poker tool sorts the historical data based on the weights provided by user** **5. The developer makes final adjustments to which projects and user stories to include and their respective weights based on discussion.**
Alternate Pathways:	**NA**
Exception Pathways:	**4.1.EP.1. System crashes** **The planning poker tool will be closed**
Notes and Issues:	**NA**

6.6. Use Case 5.1

6.6.1. Brief Description

- **Describes estimating and sharing story points activity**
- **Software developer is the primary actor**
  - **Wants to estimate and share an estimated story point**
- **Uses relevant historical project and user story data subset**
  - **Relevant subset obtained from first and subsequent rounds of planning poker**
  - **Use cases 3.1 and 4.1**

6.6.2. The Use Case

Use Case ID:	**5.1**		
Use Case Name:	**Estimating and sharing story points using historical data**		
Traceability:	**4.2. Planning poker tool shall produce a weighted average of the story point for estimation**		
Created By:	**Team 19**	**Last Updated By:**	**Team 19**
Date Created:	**11/10/2023**	**Date Last Updated:**	**11/10/2023**

Actor:	**Software developers are the primary actors.**
Description:	**As a software developer who has selected relevant projects and user stories, I want to estimate and share an estimated story point for the new user story using my historical data.**

Preconditions:	**1. User must be authenticated by application** **2. The user must have set up the planning poker session** **3. The user has selected a relevant set of projects or user stories** **4. Planning poker application must have access to the user's historical data** **5. Application has information on the relevant subset of historical data** **6. User needs sets of physical story point cards**
Postconditions:	**1. User has a new story point estimate** **2. The user has selected a physical story point card using estimate** **3. The user has shared the story point estimate with to rest of the team**
Primary Pathway:	**1. The Developer clicks the button to produce an estimated story point.** **2. The application uses the provided historical projects and user stories and weights to produce an estimated story point.** **3. The planning poker application presents the developer with an estimated story point** **4. The developer selects and shares a planning poker card using the estimated story point to the rest of the team.**
Alternate Pathways:	**5.1.AP.1. No historical data selected** **If the developer doesn't select any user stories and clicks the estimate button, the application will produce an estimated story point of 0.**
Exception Pathways:	**5.1.EP.1. System crashes** **The planning poker tool will be closed**
Notes and Issues:	**NA**

6.7. Use Case 6.1

6.7.1. Brief Description

- **Describes the process of saving user story information after discussion**
    - **Describes the finalization activities in planning poker**
- **Useful for future use in other applications**
- **Software developer is the primary actor**
    - **Want to save user story and story point estimate**
    - **Allows for use in apps like EffortLogger V2.0**
- **Database maintained by EffortLogger V2.0. is the secondary actor**

6.7.2. The Use Case

Use Case ID:	**6.1**
Use Case Name:	**Saving final user story information for future use in other applications**

Traceability:	**4.5. Planning poker tool shall allow users to update keywords and story points before saving** **4.6. Planning poker tool shall store the results in a database for future use in EffortLogger V2**		
Created By:	**Team 19**	**Last Updated By:**	**Team 19**
Date Created:	**11/10/2023**	**Date Last Updated:**	**11/10/2023**

Actor:	**Software developer is the primary actor** **Database maintained by EffortLogger V2.0 is the secondary actor**
Description:	**As a software developer who has reached an agreement on an estimated user story, I want to save my results for future use in apps like EffortLogger V2.0.**
Preconditions:	**1. User has come to a consensus with team members on an estimated story point** **2. There are no more rounds of planning poker with team** **3. The highest and lowest estimates from the team are resolved** **4. The user has access to a collection or database with historical project data**
Postconditions:	**The User's new user story and project information are saved to the database**
Primary Pathway:	**1. The developer verifies the project name and user story point description and name are correct** **2. The developer clicks a button to save the details of the user story to their database.** **3. The planning poker application connects to the database that stores the user's project data** **4. The planning poker application saves the user story to the database**
Alternate Pathways:	**6.1.AP.1. Discrepancy with entered data** **1. The developer before clicking the button will have to correct data in case of duplicates** **2. Use can enter valid data in fields and then click on the button**
Exception Pathways:	**6.1.EP.1. System crashes** **The planning poker tool will be closed**
Notes and Issues:	**NA**

7. Conclusion

7.1. Lessons Learned

7.1.1. Importance of Data-Driven Processes

- Incorporation of data-driven processes has significantly improved planning poker efficiency.
- Realization of the importance of historical data for effort estimation and informed decision-making.

7.1.2. User Story Retrieval and Weight Adjustments

- Learning the value of efficient user story retrieval and dynamic weight adjustments.
- Recognizing the need for faster weight adjustments and their impact on planning poker sessions.

7.1.3. Security and Privacy Enhancements

- Implementing multi-factor authentication and encryption techniques addressed critical data security concerns.
- Understanding the importance of safeguarding data against leakage and unauthorized access.

7.2. Strategic Insights

7.2.1. Operational Efficiency and User Experience

- Emphasis on operational efficiency in planning poker processes.
- Focus on user-friendly design and excellent user experience.

7.2.2. Technological Adaptability and Scalability

- Importance of the tool's scalability to support growing organizational needs.
- Ensuring the tool's adaptability to various operational environments.

7.2.3. Data Management and Utilization

- Significance of effective user story data management for planning accuracy.
- Utilization of historical data to streamline planning and estimation.

7.3. Future Consideration

7.3.1. Continuous Improvement and Adaptation

- Emphasis on the need for continuous feedback incorporation and database expansion for more historical data.
- Recognition of the importance of addressing unforeseen challenges in the deployment phase and adapting accordingly.

7.3.2. Stakeholder Engagement and Collaboration

- Importance of integrating further stakeholder feedback for system enhancements.
- Continued focus on enhancing tools for facilitating consensus and collaborative decision-making among team members.

Appendix A: Credit Sheet

Team Member Name	Contributions
Krishnaprasad Palamattam Aji	Worked on providing storyboards for EffortLoggerV2 and Planning Poker Worked on providing user stories for Planning Poker tool
Malin Tan	Worked on providing use case diagram, details, and table for use case Worked on providing details for Planning Poker requirements
Zhicheng Lin	Worked on providing system architecture, details for each element Worked on explaining why they are architecturally important.
Varun Menon	Worked on using the essential architectural elements to create different architectural view diagrams. Explained architectural importance and definition. Worked on the high-level outline to make it easy to understand at an executive level. Wrote the conclusion.