Objectives

- Discuss R&D findings regarding libraries to replace Qt with the team lead.
- Explore alternative UI frameworks for the project.
- Transform the UI implementation into ImGui and investigate the use of GLFW/GLAD.
- Resolve GitHub file size issues for backing up project files.
- Document the linking process for Boost.Signals2 and SFML with wxWidgets.

Activities

1. **Discussion with Team Lead**
   - Presented integrated Qt code transformed to use wxWidgets, Boost.Signals2, and SFML.
   - Discussed class definitions and attribute declarations.
   - Explored additional UI frameworks via [TerminalRoot article](#).
   - Received guidance on the concepts of Scene, View, and Item in graphics, including practical uses.
   - Learned about ImGui as a preferred UI for game developers and its integration possibilities.
   - Decided to replace GraphicScene, GraphicView, and GraphicItem with GLFW and/or GLAD, pending further research on their compatibility.

2. **New Tasks Assigned**
   - Transform UI implementation into ImGui and GLFW/GLAD while keeping Boost.Signals2 for signals.
   - Compare SFML with GLFW/GLAD, focusing on pros and cons.
   - Ensure the transformed functions in ImGui mirror existing functions and buttons, enabling comparison of:
     - Learning curve.
     - Processing efficiency.
     - Resource and power consumption.

3. **GitHub Backup**
   - Attempted to back up Qt and wxWidgets code to GitHub.
   - Encountered file size issues during the push process.

- **Problem**: File size too large for GitHub push.
  - **Solution**: Researched and implemented Git Large File Storage (LFS) after increasing Git buffer size and HTTP post buffer failed.
  - Followed guidance from a YouTube video tutorial: [Git LFS Tutorial](#).
  - Successfully pushed large files using LFS.

4. **Documentation**
   - Created a detailed manual for linking Boost.Signals2 and SFML libraries with wxWidgets in project properties.
     - Included step-by-step instructions.
     - Added important reminders and warnings for user awareness.

Achievements

- Identified and began transitioning to ImGui and GLFW/GLAD based on team lead's guidance.
- Successfully resolved GitHub file size issues using Git LFS and backed up project files.
- Documented the linking process for key libraries, providing clear guidance for future reference.

Problems & Solutions

1. **Problem**: File size too large to push to GitHub.
   - **Solution**: Implemented Git Large File Storage (LFS) based on YouTube tutorial guidance.
2. **Problem**: Limited understanding of ImGui and GLFW/GLAD usage and compatibility.
   - **Solution**: Assigned research tasks to investigate their integration and comparative performance against SFML.