

Minimum Viable Product (MVP)

For the Selenium and AWS project, the MVP is focused on delivering an automated, reliable, and scalable testing solution that integrates seamlessly into modern development workflows. The goal is to streamline web application testing through efficient automation while leveraging cloud-based infrastructure for scalability and accessibility. Key functionalities include developing robust Selenium scripts for functional and regression testing of web application components to ensure high performance and quality. Additionally, AWS services, such as EC2 for hosting virtual machines and S3 for centralized storage of test reports and logs, are used to provide easy access and management of test data. Continuous Integration and Continuous Deployment (CI/CD) workflows are automated to ensure seamless testing with every code update, reducing manual intervention and accelerating deployment cycles.

For the Bucstop Video Game Site, the MVP delivers a user-friendly gaming platform tailored specifically for ETSU students. The platform focuses on simplicity, security, and user-centric design to meet the community's needs. Core features include ETSU ID-based authentication to ensure secure and personalized access, a game upload and sharing feature for students to showcase their creations, and an intuitive interface that allows users to browse, search, and play games with ease. Secure backend systems ensure the reliable storage and management of uploaded games while maintaining data integrity and user privacy.

State of the Project

The Selenium and AWS project has progressed to the implementation phase with several notable achievements. Basic Selenium test cases for key application functionalities have been developed, executed, and validated. The initial AWS environment setup, including provisioning EC2 instances and configuring S3 for storage, has been completed successfully. CI/CD pipelines are operational, enabling automated testing during deployment cycles. Moving forward, the focus is on enhancing test scripts to handle more complex user scenarios, addressing cross-browser compatibility issues, and extending testing to edge cases. Optimizing the AWS infrastructure for parallel testing will also improve efficiency and reduce execution times. Current challenges involve debugging compatibility issues between Selenium scripts and specific browser configurations, ensuring smooth functionality across various environments.

The Bucstop Video Game Site has made significant progress in its development, particularly in designing a responsive user interface and implementing ETSU ID-based authentication for secure access. A prototype of the game upload feature has been launched, and the backend architecture for secure game storage is operational. Next steps include refining the user interface to enhance usability and visual appeal, ensuring compliance with accessibility standards to support a diverse user base, and stress-testing the platform to evaluate its performance under high traffic conditions. A testing phase is planned with select ETSU students to gather valuable feedback, which will inform further improvements and iterations.

