

Quality Engineering Project Presentation - 9/1/25

Benjamin and Kathy Script

- *if lost, or unsure, move on to next point*
- *try to avoid talking about things not listed*
- *try to avoid repetition*

Introduce who we are

Technical Tools - 10 seconds

- In presentation > symbols of tools used

Communication and Documentation - 1 minute

- Key focus of **traceability**
 - Helps avoid having to deal with the same issues multiple times
 - Gives visibility on who is working on what, and when
 - Avoids clashes
- GitHub (Issues, and test repo)
- Slack (short questions and meeting planning)
- Zoom (pair-working and meetings)
- Excalidraw (live note taking for pair work)
 - Easy to blend notes and diagrams
 - Easy to reorganise work

The Specification - 1 minute

- Not only building, but designing scratch = No provided user requirements for the project
- Developers were not familiar with what a functional specification consisted of
- We provided a document of questions to generate clarity on what should be in the spec
- From the devs' answers, we created a formal spec document containing features, functionality, display and UX details that would drive dev decisions
- We strongly pushed for a feature implementation roadmap so we don't raise unnecessary issues and bugs for features/functionality that are planned for future updates
- making sure there was clear understanding for all around what is expected and when (ie Yes, No, Not Yet). This means we'll be able to plan tests accordingly, and preempt a lot for the devs

Advocating for Behaviour Driven Development - 30 seconds

- Starting with a purpose or customer need, we could establish a clear direction for the project, and ensure all features work towards that goal
- Makes things easier to test as well
- Testers can bring in value earlier on in the cycle

Designing with Accessibility in Mind - 30 seconds

- Leading on from this point we enjoyed sharing insights specifically on accessibility and it was amazing to be able to advocate for this and explore accessibility-forward design with the devs from day 1.
- Devs could be aware of things such as element naming and UI choices as they built
- During this time, we also discussed the importance of standardising our processes
 - Branch, commit, and issue ticket naming conventions
 - Created a bug report template
- It was great to see the value of accessibility for our own team's benefit too - clarity, empathy and efficiency benefits everyone!

The First Exploratory Test - 10 seconds

- Planned before the release of the MVP
- We would do a manual test with a timebox of 1 hour

Test Techniques and Tools - 1 minute

- Black box testing
 - No looking at the code before doing the exploration
 - Bring value through a fresh pair of eyes / a different perspective to the devs
- Boundary Value Analysis
 - Whilst at the start, no numerical targets given (e.g. post character limits)
 - Clarifying questions with devs
 - Clear boundaries established (e.g. 500 character limit)
 - Testing at and around the boundary (e.g. 499, 500 and 501 characters)
- Equivalence Partitioning
 - Identify what exactly is being tested and then separate into categories
 - Avoids wasting time doing repetition
 - Ensures each test case is bringing value

Test Data Generation - Text - 30 seconds

- Used Faker python package
- Exported to CSV
- Problem found
 - Some lines had extra commas
 - Which affected CSV parsing and our data validation testing
 - Lithuanian names would sometimes generate in surname-comma-firstname format
 - Decided to remove lithuanian names, since the special characters here were already covered by the generated Czech names
 - We learnt that even established software packages can have bugs, so it's a good idea to verify and not just assume

Test Data Generation - Images - 30 seconds

- Python Image Library
- We can test how the app handles images of different shapes and sizes
- We could test exact boundaries with a high level of control
- We discovered differing behaviour across the app
 - On the user profile page, non-square images would be cropped
 - On the concerts page, non-square images would be squashed instead

Process Improvements - **30 seconds**

- Lack of team members with specific roles
 - Project manager to help streamline meetings and ticket allocation
 - BA and PO to help with requirements and definition of done
- Raised bugs such as this one through GitHub Issues
- **Problem:** our bug tickets were getting lost within all the tickets created by developer on the GitHub Project Kanban board
 - **Solution:** We created new labels for the bugs to help visually separate them from other tickets, and make them easily filterable and sortable
- Other things we raised:
 - Avoiding premature optimisation
 - The benefits of an iterative approach
 - Front end and accessibility back and forth between us and devs
 - Reducing non-value-gaining time spent in group meetings
 - The value of documenting as you go

Static Testing - **20 seconds**

- White Box now
 - Code analysis tools
 - For security
 - For reliability
 - For maintainability
 - SonarQube identified a section of code with lots of nested if-else blocks, that could be difficult to understand, maintain and/or modify
 - Raised with the appropriate dev

API Troubleshooting - **1 minute**

- Linking Spotify API would break one of the webpages
 - To gain visibility
 - Looked at terminal output
 - Used network tab of browser developer tools to check HTTP requests
 - Sent modified requests using Curl and Postman
 - Manually adjusted data within the database using tableplus
 - On the way, we gained new skills with:
 - Find
 - More
 - Grep
 - We used the above to scan through the codebase to find routes to test

Accessibility - Part 1 - **30 seconds**

- Colorblindly / Wave / Lighthouse
 - Tab headers became difficult to see when selected
- A message on search result count was in a place that caused confusion
 - Looked like it referred to the count of Users found, rather than that total number of results found (including Artists)

Accessibility - Part 2 - **30 seconds**

- Toggle button state unknowable (RSVP)
- Elements to benefit from alt text (images with identical link name)
- Unselectable links (profile photo hover menu)

The most notable parts of the project - **1 minute**

- All on the slide

Thank you, thanks devs and coaches and any questions?