# Specialism Project (SDET) - Choonz

Week 12 Final project - Client Web Application Testing & Deployment

### Team Ice

Tay Dzonu Owen Jackson Mohammad Rashid Oforitsesan Towesho

06/11/2020

### Presentation

- 1. Project description
- 2. Risk Assessment
- 3. Sprint
- 4. Demo
- 5. Testing
- 6. Improvement
- 7. Our Journey



### Project description

- To improve upon, and provide a full test suite for, the full-stack music library web application, Choonz, that we were provided with from Angelica (client).
- With utilisation of supporting tools, methodologies and technologies that we have developed during training.

#### What was out focus?

- Agile working, collaboration within the team was priority and ultimately very successful.
- Rigorous testing.
- MVP. A product/sprint review with Angelica at the end of sprint 1 provided us with useful feedback on what to work towards:
  - User experience
  - Functionality

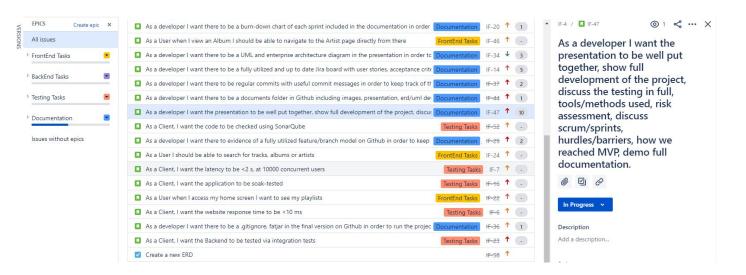


### Risk Assessment

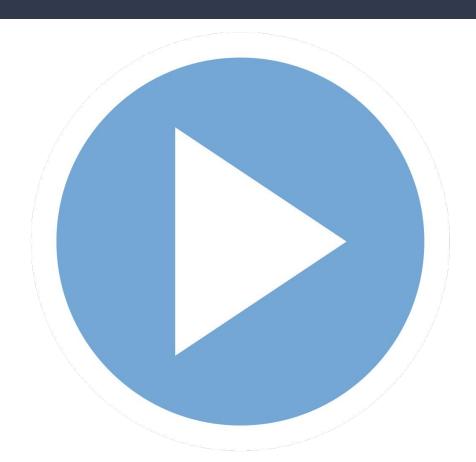
Risk description	Cause	Risk event	Likelihood	Impact	Risk rating	Action
Lack of Time	Poor PM and TM	MVP and project spec are not met	2	4	8	Time management, planning, organisation, using Jira board correctly. Forecasting accurately
Faulty equipment	Laptop breaking/crashin g	Saved work could be lost	1	4	4	Git feature branch model used regularly. Back up laptop on standby
Lack of communication	Stand ups and teams not used correctly	Delays or incompletion of the project/mark scheme not met, presentation issues	3	5	15	Prepare for any possible delays and factor in time. Asking questions early on where necessary. Discussing decisions with team regularly.
Cannot use technologies properly	Lack of understanding of technologies and working with them	Incomplete or delayed project. MVP not met. Delay in sprint finish. Application contains bugs	3	4	12	Consult team, trainers, online and QA community modules. Delegate tasks to team members who are strongest with each technology. Ensure of software is up to date.
Poor internet connection during the presentation	Unreliable internet connection	Communication of ideas may be hindered making the marker lack full understanding of the project	1	5	5	Locate close to router or use ethernet cable. Make sure other people are not using up bandwidth or downloading at the same time.
Application not rigorously tested	Lack of understanding, time or practice	80% coverage not met, JMeter not used correctly, reports not created, selenium tests not running	4	4	16	Ask questions, collaborate within team, working on feature/branch model, factoring in time to complete, keeping application simple
Merge clashes in GitHub or loss of data using Git	First time with multiple people working on same repo	Merges clashing when pushing to repo, master branch not compiling, work being lost or overwritten.	4	4	16	Using feature/branch model correctly, using regular commits with useful commit messages, having admins check code before merging
Lack of understanding of the project	Not reading the project spec, not asking questions early, not collaborating in team	MVP not met, missing out on marks from mark scheme	2	4	8	Read through the project spec, ask trainers if not 100% sure. Ask team members to confirm

### Sprint Plan

- Jira
- 2x 5-day sprints + 'sprint zero'
- User Stories
- MosCow principles
- Delegation of tasks
- Meeting the MVP



# Application demonstration



## Testing

#### Backend Testing -

- Unit tests tests how each class (Unit) works by itself
- Integration tests tests to ensure that the integration of the class (Unit) with the rest of the code works
- Coverage test Checking the extent of the code which is checked by the tests above
  - o 97.0% of main [industry standard : ≥80%]

#### Frontend Testing-

- Selenium tests Checking whether the application interface works by automating 'users'
  - Tested whether all buttons work
  - Ensured that processes returned the expected results
    - e.g. Playlist delete button is clicked → Playlist is no longer found

#### Non-functional Testing-

- JMeter tests Observing the system's performance at different levels of concurrent users
- Sonarqube Used to ensure code adheres to standards and to spot bugs

### Further improvements

#### Functionality-

- Search Bar to find artists, albums etc.
- Ability to create public / private playlists
- A stronger frontend design and capabilities
- Security (use cookies) instead of URL Search Parameters to keep track of logged in user
- User Experience
  - Incorporate a better method for forgotten passwords
  - Collaborative playlists

#### Testing -

- Sonarqube A lot of issues came up that were not clear.
  - Fix the code smells

### Our Consultant journey

How have we improved?

- Learnt how to use new technologies
- Agile methodology of working
- Communication and Collaborative working skills

Things we have come to understand are important?

How has our team worked together?

Communication