

# Professional Practice

## Meeting with Kristian Putman – Freelance Programmer

02/05/2024

### Attendees:

- Richard Casey
- Kristian Putman

**Meeting Duration: 1 hour and 9 minutes**

### Meeting Minutes:

#### Review of Previous Meeting:

- The meeting began at 12:01 PM with a review of the previous meeting held on 29/04/2024.
- I provided an update on my progress since the last meeting.

#### Progress on Login Page Project:

- I discussed my research on salted hash storage and JWT (JSON Web Tokens), including the challenges and solutions I encountered.
- I shared that I spent a total of approximately 6 hours and 53 minutes on 1st May researching and working on these topics.

#### Challenges and Solutions:

- I detailed the issues I faced with implementing secure storage for user credentials using salted hashes.
- Kristian explained that using a salted hash is crucial for security because it adds an extra layer of protection by appending a unique value to each password before hashing, making it significantly harder for attackers to crack.
- For JWT implementation, he stressed the importance of ensuring the tokens are properly signed and that the payload is secure. He recommended using established libraries like jsonwebtoken for handling JWTs to avoid common pitfalls.

#### Best Practices and Additional Advice:

- Kristian emphasised the importance of thorough testing for security-related features, advising to include unit tests and integration tests to cover different scenarios.

- He suggested using Bcrypt for hashing passwords, highlighting its built-in support for salting and adaptive hash functions that make it resistant to brute-force attacks.
- He also recommended familiarizing myself with the OWASP (Open Web Application Security Project) guidelines for web security, which provide comprehensive best practices for securing web applications.
- Kristian pointed out the necessity of secure token storage, advising to store tokens in HTTP-only cookies to mitigate the risk of cross-site scripting (XSS) attacks.
- At this stage of the project, we clarified that the goal is to simulate the login and authentication process within Unity, rather than implementing it onto a live database.

**Next Steps:**

- I was advised to start implementing the authentication system and to perform unit tests to ensure the reliability of the code.
- We discussed a timeline for the upcoming tasks, with specific milestones to be reached by the next meeting.

**Confirmation of Next Meeting:**

The next meeting was scheduled for Wednesday, 8th May at 12:00 PM.

**Meeting adjourned at 1:10 PM.**