

Scrum Retrospective Sprint Report

IDATA2306 – Application Development

Scrum development period: 16.01.2023 – 31.05.2023
Developer team: Petter Edvardsen, Even Haslerud, Jørgen Finsveen, Oskar Lothe
Scrum table: <https://github.com/orgs/Group10-IDATA2301-IDATA2306/projects/4>
Issueboard: <https://github.com/orgs/Group10-IDATA2301-IDATA2306/projects/3>

This is a collection of the reports for each sprint retrospective which were carried out by group 10 during the development of the portfolio assessment for IDATA2306 – Application Development, at NTNU Ålesund.

Scrum iterations:

- *Sprint 0:* 16.01.2023 – 05.02.2023
- *Sprint 1:* 06.02.2023 – 26.02.2023
- *Sprint 2:* 27.02.2023 – 19.03.2023
- *Sprint 3:* 20.03.2023 – 09.04.2023
- *Sprint 4:* 10.04.2023 – 28.04.2023
- *Sprint 5:* 28.04.2023 – 15.05.2023
- *Sprint 6:* 15.05.2023 – 31.05.2023

Retrospective Sprint 0

| | |
|------------------|--|
| Date | 16.01.2023 – 05.02.2023 |
| Attendees | <ul style="list-style-type: none"> - Petter Edvardsen - Even Haslerud - Jørgen Finsveen - Oskar Lothe |
| Topics | <ul style="list-style-type: none"> • Group establishment • Planning work strategy • Discussing application architecture • Wiki-page for documentation • Remote repository • Models and cases |

Discussion

| What went well? | What could be better? | What will we do differently? |
|---|---|---|
| Cooperation and brainstorming. | Group contract should include meeting schedule. | Take advantage of the lectures we have at campus and have meetings and discuss ideas after those. |
| Agreeing on design principles. | | |
| Created project structure and architecture. | | |
| Sprints were planned | | |
| Models and cases were designed | | |

Action items

| Item | Person responsible | Due date |
|--|------------------------------------|------------|
| Start making Wiki-pages, diagrams and other forms for documentation | Petter Edvardsen, Even Haslerud | 05.02.2023 |
| Initialize Spring Boot project, React project, and database | Jørgen Finsveen | 05.02.2023 |
| Write and finalize the design guidelines according to meeting discussions. | Oskar Lothe | 05.02.2023 |

Retrospective Sprint 1

| | |
|------------------|---|
| Date | 06.02.2023 – 26.02.2023 |
| Attendees | <ul style="list-style-type: none"> - Petter Edvardsen - Even Haslerud - Jørgen Finsveen - Oskar Lothe |
| Topics | <ul style="list-style-type: none"> • Database • Security • REST API |

Discussion

| What went well? | What could be better? | What will we do differently? |
|---|--|---|
| Database implementation. | The database model were changed quite frequently. | Put more effort into designing the database relations before implementing it. |
| Managed to secure secrets in properties file. | Had security breach and wound up leaking database passwords to the public GitHub repository. | Double check that the secret files are present in .gitignore before pushing. |
| Learned lots about JSON Web Tokens. | | |
| Made a detailed plan regarding which API endpoints we might need. | | |

Action items

| Item | Person responsible | Due date |
|--|-----------------------------------|-----------------|
| Design database model and draw ER-diagram. | Petter Edvardsen, Jørgen Finsveen | 25.02.2023 |
| Set secret properties file which are not accessible in GitHub. | Even Haslerud | 26.02.2023 |
| Research security measures such as JWT. | Oskar Lothe, Even Haslerud | 26.02.2023 |
| Discuss which REST API endpoints to include. | Petter Edvardsen | 26.02.2023 |

Retrospective Sprint 2

| | |
|------------------|---|
| Date | 27.02.2023 – 19.03.2023 |
| Attendees | <ul style="list-style-type: none"> - Petter Edvardsen - Even Haslerud - Jørgen Finsveen - Oskar Lothe |
| Topics | <ul style="list-style-type: none"> • Database • REST API • Junit tests |

Discussion

| What went well? | What could be better? | What will we do differently? |
|--|--|--|
| Database implementation. | The database model still needed to be changed quite often. | Put more effort into designing the database relations before implementing it. |
| Many REST API endpoints were implemented. | Was not really productive to implement the endpoint when the database changed + that the front-end was not as developed as the back-end. | Wait to implement endpoints until the database model is finalized and the front-end is developed to an extent in which we can determine which endpoints we need. |
| Learned how to implement Junit tests for Spring Boot applications. | Had trouble making more advanced tests. Was not really productive to implement before the database was finalized. | Wait to implement Junit tests. |

Action items

| Item | Person responsible | Due date |
|--|--|-----------------|
| Design database model and draw ER-diagram. | Petter Edvardsen, Jørgen Finsveen, Oskar Lothe, Even Haslerud | 19.03.2023 |
| Implement API endpoints. | Petter Edvardsen, Even Haslerud | 19.03.2023 |
| Implement Junit test-classes for back-end. | Oskar Lothe, Jørgen Finsveen | 19.03.2023 |

Retrospective Sprint 3

| | |
|------------------|---|
| Date | 20.03.2023 – 09.04.2023 |
| Attendees | <ul style="list-style-type: none"> - Petter Edvardsen - Even Haslerud - Jørgen Finsveen - Oskar Lothe |
| Topics | <ul style="list-style-type: none"> • Database • Security |

Discussion

| What went well? | What could be better? | What will we do differently? |
|--|-----------------------|------------------------------|
| Database was finally completed and does not require additional major changes. | | |
| Implemented good authorization with JSON Web Tokens and encryption of sensitive data such as user passwords. | | |

Action items

| Item | Person responsible | Due date |
|---|--|------------|
| Design database model, draw ER-diagram, implement entity-classes and CRUD repositories. | Petter Edvardsen, Jørgen Finsveen, Oskar Lothe, Even Haslerud | 09.04.2023 |
| Implement encryption of user passwords. | Petter Edvardsen, Oskar Lothe | 09.04.2023 |
| Implement JSON Web Token authorization. | Even Haslerud, Jørgen Finsveen | 09.04.2023 |

Retrospective Sprint 4

| | |
|------------------|---|
| Date | 10.04.2023 – 28.04.2023 |
| Attendees | <ul style="list-style-type: none"> - Petter Edvardsen - Even Haslerud - Jørgen Finsveen - Oskar Lothe |
| Topics | <ul style="list-style-type: none"> • Security • HTTPS • Postman |

Discussion

| What went well? | What could be better? | What will we do differently? |
|---|--|-------------------------------------|
| Lots of improvements were made. | The group has too many branches, making it difficult to synchronize. | Work more on the same branch. |
| HTTPS was achieved through a self-signed SSL certificate. | | |
| The endpoints which are currently implemented has been tested with Postman. | | |

Action items

| Item | Person responsible | Due date |
|--|---------------------------------|-----------------|
| Refactor the code and add Javadoc. | Jørgen Finsveen, Oskar Lothe | 28.04.2023 |
| Get SSL certificate and implement it into the application. | Even Haslerud | 28.04.2023 |
| Create Postman tests for API endpoints. | Petter Edvardsen | 28.04.2023 |

Retrospective Sprint 5

| | |
|------------------|---|
| Date | 28.04.2023 – 15.05.2023 |
| Attendees | <ul style="list-style-type: none"> - Petter Edvardsen - Even Haslerud - Jørgen Finsveen - Oskar Lothe |
| Topics | <ul style="list-style-type: none"> • Security • Endpoints • Postman |

Discussion

| What went well? | What could be better? | What will we do differently? |
|---|-----------------------|--|
| JSON Web Tokens now contains the authorities of the authenticated user. | | Will consider letting a user hold several roles rather than one which overrides lower authorization-level roles. |
| Implemented endpoints which are needed for the front-end. | | |
| The endpoints which are currently implemented has been tested with Postman. | | |

Action items

| Item | Person responsible | Due date |
|---|-----------------------------------|------------|
| Add user roles into the JWT and add role-requirements to endpoints. | Jørgen Finsveen, Even Haslerud | 15.05.2023 |
| Implement API endpoints. | Petter Edvardsen | 15.05.2023 |
| Create Postman tests for API endpoints. | Oskar Lothe | 15.05.2023 |

Retrospective Sprint 6

| | |
|------------------|---|
| Date | 15.05.2023 – 31.05.2023 |
| Attendees | <ul style="list-style-type: none"> - Petter Edvardsen - Even Haslerud - Jørgen Finsveen - Oskar Lothe |
| Topics | <ul style="list-style-type: none"> • Email • Endpoints • Testing • Deployment • Completion |

Discussion

| What went well? | What could be better? | What will we do differently? |
|---|-----------------------|------------------------------|
| Email service was implemented and is working. | | |
| Users can now hold multiple roles. | | |
| All needed endpoints has been implemented, tested with both Postman and MockMvc, and documented with Swagger. | | |
| Application is deployed and running on the OpenStack server. | | |

Action items

| Item | Person responsible | Due date |
|--|--|------------|
| Implement Email service. | Jørgen Finsveen | 31.05.2023 |
| Let users hold several roles. | Even Haslerud | 31.05.2023 |
| Create Postman tests and MockMvc for API endpoints. Add Swagger documentation. | Jørgen Finsveen, Petter Edvardsen, Even Haslerud, Oskar Lothe | 31.05.2023 |
| Deploy application to OpenStack server. | Jørgen Finsveen | 31.05.2023 |