# Service-to-service authentication in a microservice deployment



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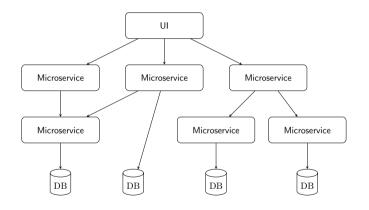
**Bachelor Thesis Presentation** 





## Monolithic Architecture vs. Microservice Architecture

# Monolith UI Business Logic Data Access Layer $\overline{\mathrm{DB}}$





#### **Monolithic Architecture**

- Traditional way of building applications
- All functions are managed and served in one place
- Large codebase and a lack of modularity
- Easy debugging and testing
- Simple to develop
- Simple to deploy
- Become very complex, when they scale up
- Making changes becomes very hard in such large and complex applications
- When new technologies are applied, most parts of the application have to be rewritten



## Microservice Architecture

- All approaches that could centralize business logic are avoided
- Independently deployed
- Implementation details are hidden, to avoid coupling between services
- Failures can be isolated
- Declaration of service boundaries is very hard
- Continuous Delivery and Continuous Integration are necessary
- Language level calls become remote calls

asdf pic1



Microservice Architecture

# Presenting a regular slide

This is a regular slide

#### Block title

And a basic block for emphasizing important information, using **\fhblock{Title}{Text}**. Below is an example of the **\fhdualpage** command, which lets you define the pane proportions and content for each pane.

This text will be on the left side of the dual-page, and takes up 40 % of the pagewidth. Lorem ipsum dolor sit amet, consectetur adipisici elit, ...

This text will be on the right side of the dual-page, and takes up 60 % of the page width. Lorem ipsum dolor sit amet, consectetur adipisici elit, sed eiusmod tempor incidunt ut labore et dolore magna aliqua.



# Presenting a list-slide with \fhslist

- Many slides actually contain only multiple bullets, rather than text in paragraphs
- In order to keep it simple, theres the **\fhslist** command, which begins a new slide and opens an itemize environment for your convenience.
- After starting the slide with the command above, you can immediately continue to provide \item bullets.
  - For sub-bullets, there's no need for begin/end blocks either. Simply use \fhlist command and drop your \item s.
  - By the way, monospaced and grey-backgrounded text can be done with \cmd{code-like text}

Centered text via \ctr{}



\fhtopicslide{content} renders a new slide, e.g. for a new topic, with large bold font and vertically centered text.





# Images, essential slides, and other macros

- There are a lot more easy-to-use macros
- Just look at the first 40-something lines of the template tex source file
- There are commands for URL references, including images, quad-pages, aligned math equations, fragile slides (e.g. for lstlistings), etc.
- Easy image inclusion with \fhimg[width]{path}



- See the burning-hot icon on the top left? You can mark slides as important using the \text{\essential} command.
- Theres also a \moot command, if you want to tag supplementary slides. Of course, the images can be easily changed just change the filepath in the source, or overwrite the image itself in the template folder.

#### That's it - have fun

- Just look at the provided example.tex file, how all these commands are used in-source it's really easy
- For a more complete list of available commands and macros, look at the template source-code
- If you find errors, have suggestions or even patches for new commands and macros you think others can benefit from, don't hesitate to tell me: erik.sonnleitner@fh-hagenberg.at

