

Research
basics of DSP
1.1.1

- Familiarizing with chosen aspects of the given literature:
 - “Guide to DSP” by Steven W. Smith; “Think DSP” by Allen B. Downey
- Getting basic knowledge of digital signal processing principle and discuss the ways of implementing them in Python code

Choose audio
effects
1.1.2

- Decide on which and how many filters will be implemented, both time- and frequency-domains
- List them and divide among group members

Define solution
architecture
1.1.3

- Decide the software architecture of the solution
- Define file and class structure
- Create version control repository and common starting point

Effects
defined
1.2.1 & 1.3.1

- Name audio effects implemented at this stage
- Define its principle of operation, required input (if special preprocessing is needed) and expected output

Effects
implemented
1.2.2 & 1.3.2

- Create class for each audio effect
- Define methods of processing the input signal to the output results
- Refactor code to meet common architecture agreement

Effects connected
to main application
1.2.3 & 1.3.3

- Create instance of a class representing each audio effect
- Provide the possibility to call the class processing methods from main function of the application

Design
agreed
1.4.1

- The form of user interface is chosen as the most efficient one for the current stage of work, schedule realization and other significant factors
- Design the user interface allowing user to choose an audio effect out of implemented ones

Design
implemented
1.4.2

- Implemented the chosen solution of user interface

Test cases
creation
1.5.1

- Choose the areas that needs to be tested before closing the project
- Create test cases for the project functionality

Test
execution
1.5.2

- Execute created test cases
- List potentially found bugs and prioritize them
- Solve the relevant bugs and repeat test execution proving completeness of the project