

DTU



MOSS

Microbial Outbreak

Surveillance System

Genepi Group Meeting

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Introduction

- . MOSS is a offline automated tool that sequences and analyses the bacterial isolates using oxford nanopore sequencing (long read) as an input data.
- . Provides the phylogenetic analysis of isolates.
- . Immediate access to results.
- . Sufficient amount of data → stop sequencing

Metadata

- . Considering metadata input objects based on ENA structure
- . Drop down lists
- . Sample details and the personal information (mandatory /not mandatory)

File Edit View Window Help

- Home
- Results
- Merge FastQ
- Update
- Config

Please provide the following information about your sequences:

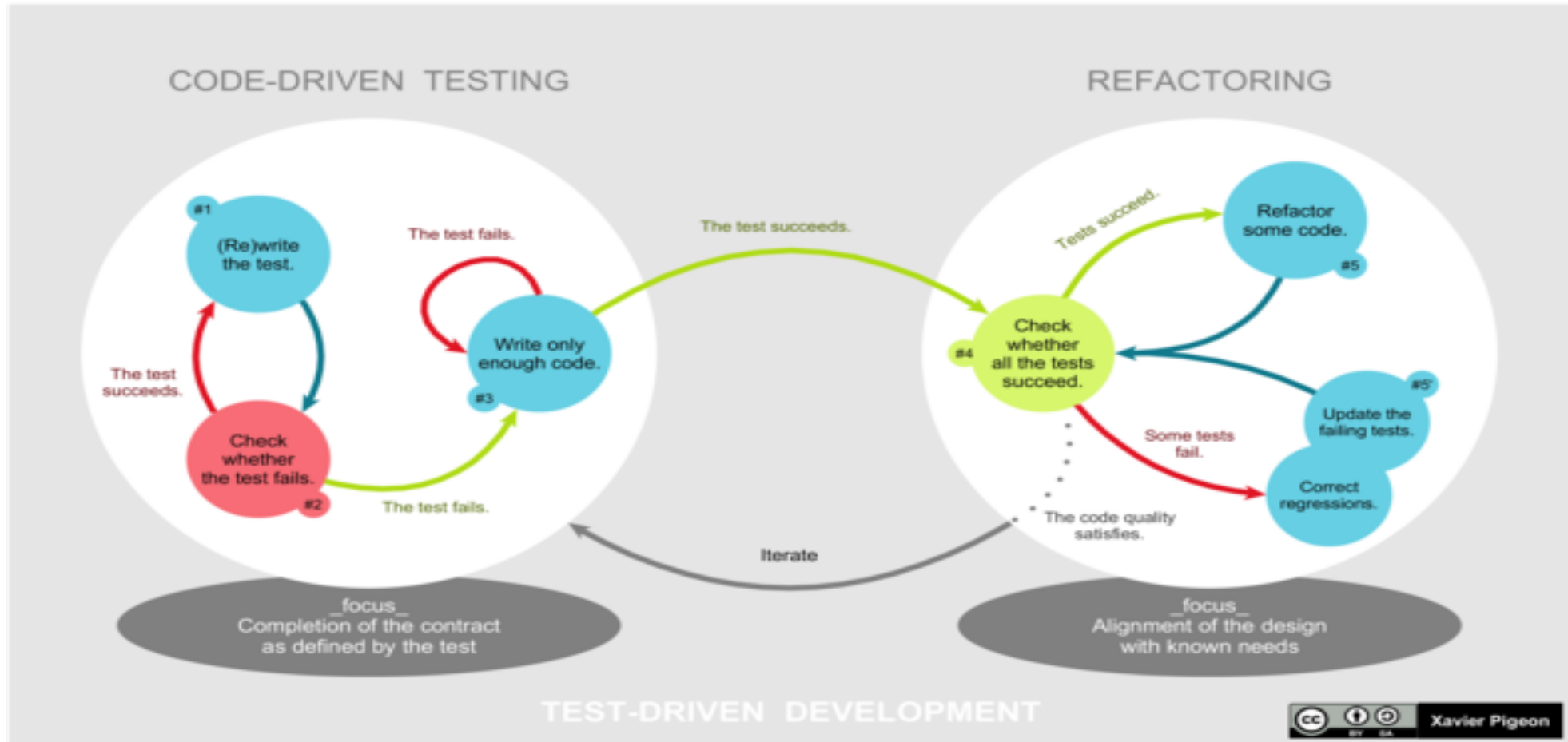
Enter a name of the sequencing experiment (This will be the name of your .json file): *

Select fastQ files: CPO20140...005.fastq.gz



collection_date

Test driven development (TDD)



Unit testing vs Integration testing

- . Unit testing is performed for all testing processes, Whereas, Integration testing is performed after unit testing before system testing.
- . All test codes concerning to the project are uploaded to github to enhance application development and each uploaded code verified by integration testing to check the functionality of the code.

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KISS Principle

- . Breakdown the problems into smaller tasks.
- . Fewer lines of codes without complications.
- . Improve the code later. Able to produce the high quality code

Test driven development

- Zenhub – To divide the tasks into sub tasks and then work on it.

Engineering team MOSS > Board

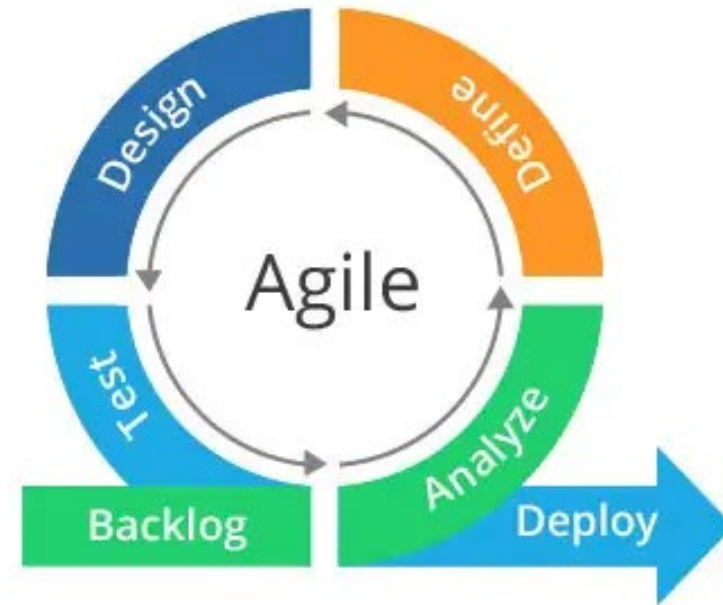
To enhance security, you will need to verify your account. [Send a verification email](#) or [update your email address](#) to start verification.

Repo (1/1) | Label | Sprint | Assignee | Epic | Release | Estimate | Author

Find issues (f+i) [New issue] +

New Issues	Icebox	Product Backlog	Sprint Backlog	In Progress	Review/QA
<ul style="list-style-type: none"> moss #79 Metadata table – more options moss #86 Automatic refresh for results section moss #87 Docs need to be updated moss #88 Produce output file for assembly and cge tool results 	<ul style="list-style-type: none"> moss #106 Metagenomics section moss #105 Virus section moss #14 Remote server sync moss #84 Can't upload samples in batch 	<ul style="list-style-type: none"> moss #107 Add database location in /opt/moss_resources moss #104 make moss database for bacteria moss #103 host moss start database at an sftp moss #102 Database hosting moss #101 update for local scripts moss #100 update for conda env moss #83 No log files for when run fails moss #85 PDF report - no headings or explanations moss #98 docker image for plasmid finder 	<ul style="list-style-type: none"> moss #55 Implement an update and rebuild function moss #51 implement logging for every run 	<ul style="list-style-type: none"> moss #99 conda environment for moss 	<ul style="list-style-type: none"> moss #46 Not all Cities are found in the countries and cities json.

Waterfall Vs Agile



Conclusion

- . To enhance the application development process by following mentioned principles and methodologies in development cycle.
- . To enhance application quality by following test driven development process and by performing unit and integration testing throughout the process.
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