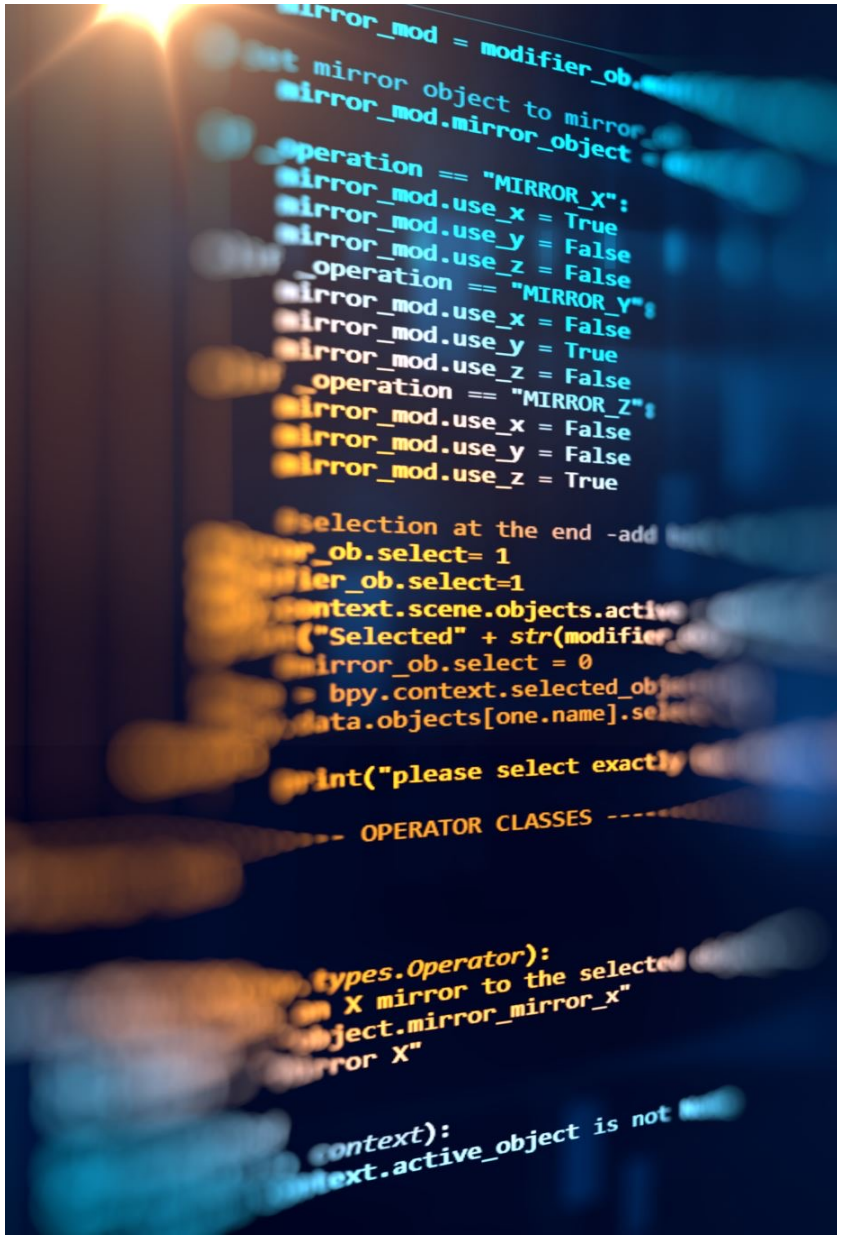
Python Project

Group: Mission to the Moon



Overview

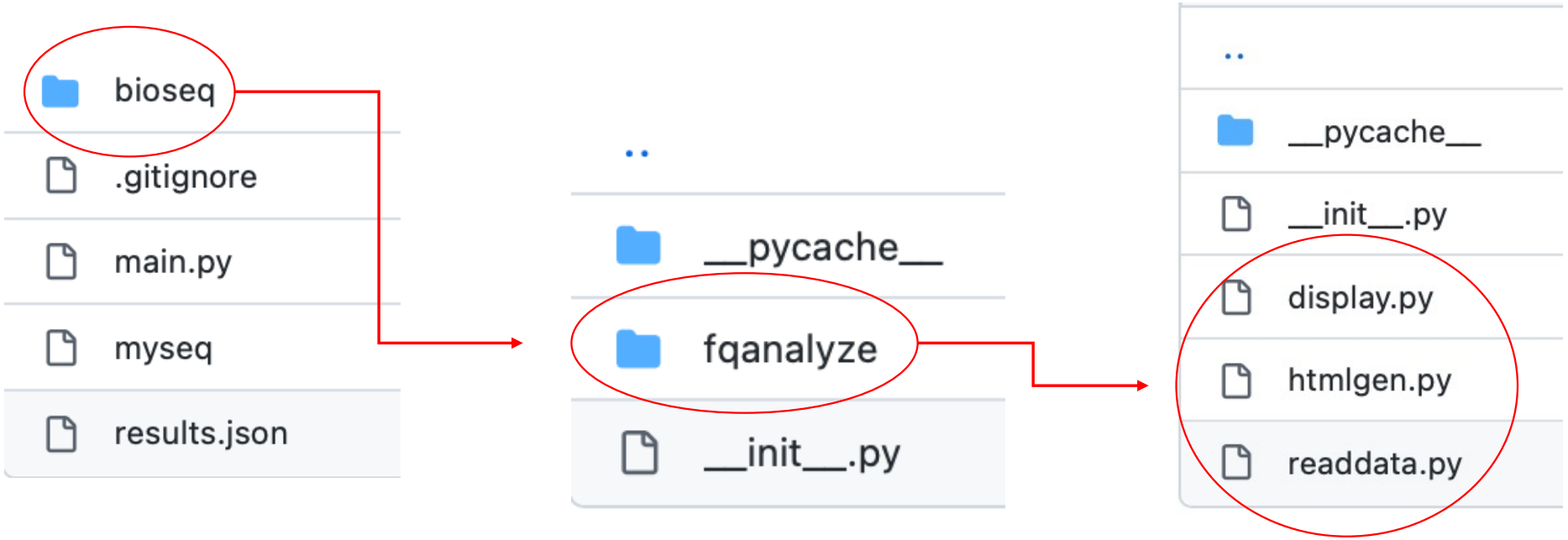
- Introduction to Program
- Function and code
  - Import .gz file and generate .json
  - Read length
  - Q-Score
  - Min, max, mean
  - Visualization to HTML
- Demonstration
  - Help
  - Analysis
  - Results

What our program (myseq) does

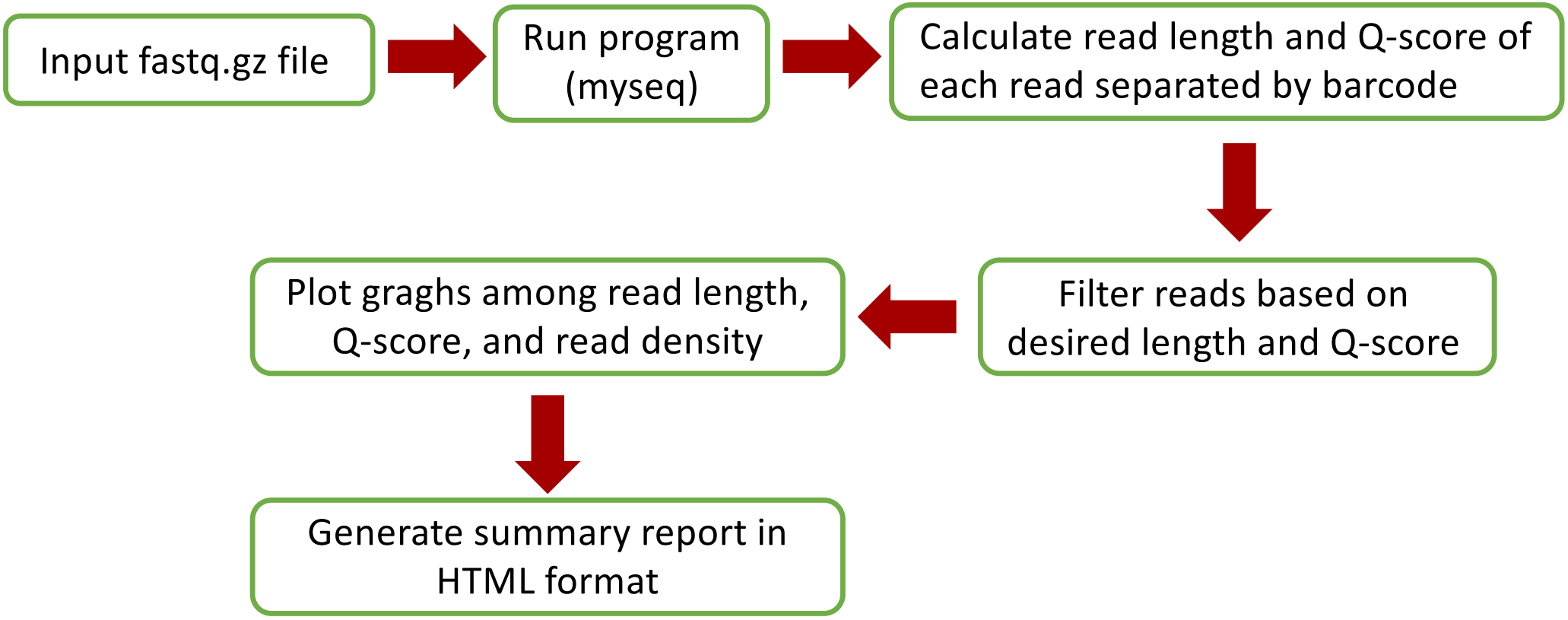
- Analyze read length and Qscore
- Filter reads based on read length and Q-score
- Plot graphs among read density, read length and Q-score
- Generate summary report in HTML format

Program package

https://github.com/DanudejC/SIRE504_Project.git



Program Workflow



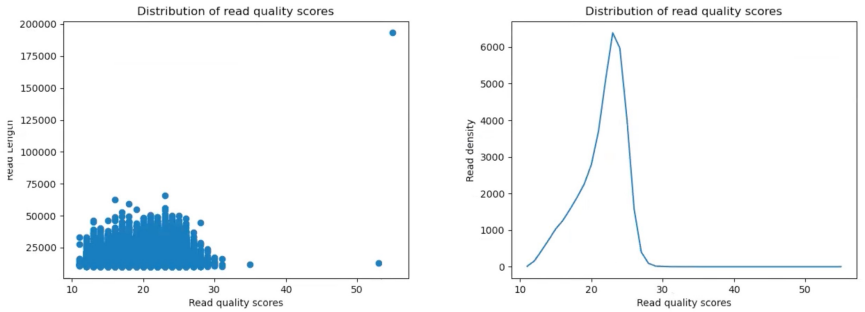
Program Outputs

To The Moon Project

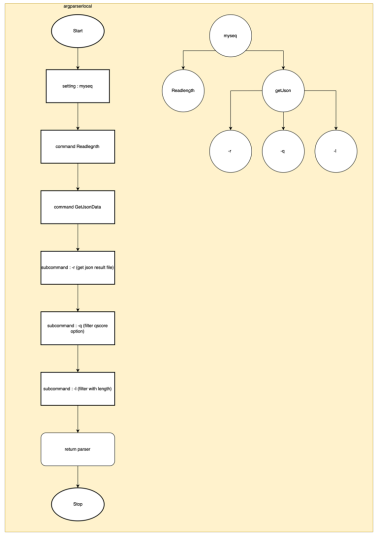
FASTQ Read Analysis Report.

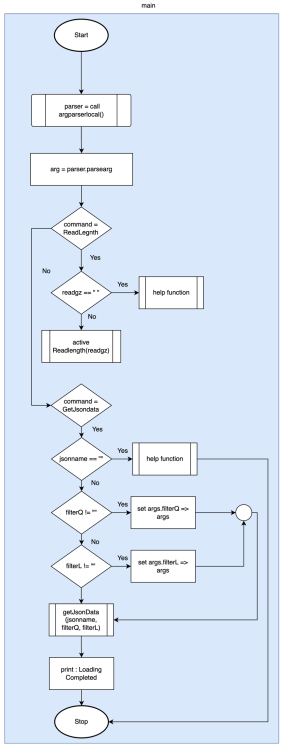
Summary of read length and Qscores

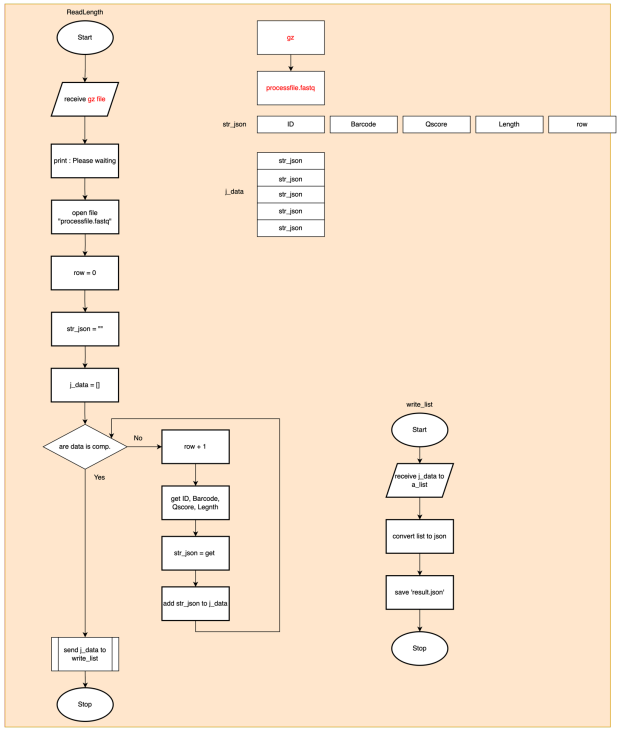
Barcode	Total Reads	Max(Qscore)	Min(Qscore)	Mean(Qscore)	Max(length)	Min(length)	Mean(length)
ALL	39,445	55.0	11.0	21.54	193,225	10000	15,556
barcode01	99,747	55.0	11.0	21.66	193,225	10000	15,138
barcode02	265,431	53.0	11.0	21.51	65,784	10000	15,658

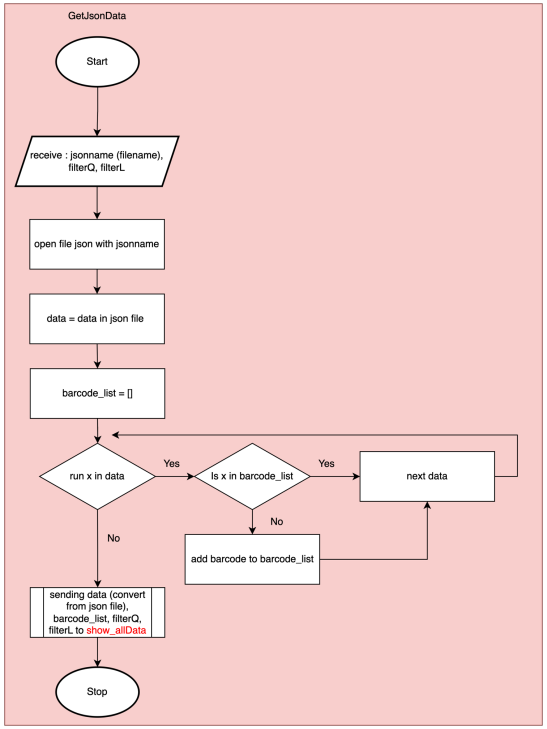


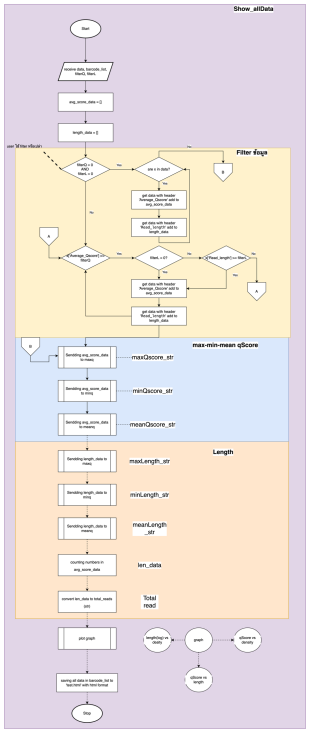
Program Workflow (in details)











Coding

- Tone – read file and find Read Length
- Kim – Average Q-Score of each read
- Champ – Filtering of Q-score and read length
- Trey – Visualisation and report