Before starting work, please reply these questions below:

1. Set yourself a deadline;
2. Give an estimate to the complexity of the task, i.e. hours needed to finish it.

You can complete this assignment with the tools you see fit and to the best of your knowledge.

## Data

With this task you are given two documents:

* Appendix 1 – log.csv
  + Filtered outtake from an application’s logs.
  + Data involves a datetime in UTC and the log message.
  + The solution is used during the assembly and describes the thermal grease application process:
    - A new product arrives;
    - The solution recognizes the product (based on image detection);
    - The system loads instructions;
    - The system initiates the preprogrammed process.
    - The product is released and process restarts;
* Appendix 2 – WorkPhase.txt
  + The steps within the process are described with these states (work phases).
  + Positive outcome: PRODUCT\_WORK\_DONE
  + Negative outcome: ABORTING

Additional information:

* Factory operates in shifts which start from 7:30 and 19:30.
* Factory is in Tallinn, Estonia.
* Cycle time – time spent on each product

## Task

The development team is optimizing the assembly process and is looking to answer these questions:

1. How many products are assembled per shift?
2. What’s the average cycle time?
3. How much time does the application spend in each work phase?

## Preprocessing

This is a one-time request – the processing can be done manually (*ad hoc*).  
Please describe the steps that you’re taking in the preprocessing phase.