

METU CENG491 2015 FALL

START-UP DOCUMENT

G10P38

Group Name: *Deadliners*

Project Name: *IMERS*

(Indexing Mechanism for Regex Search)

1. System Architecture

- *Draw the overall system architecture diagram. This should include (but it is not limited to) the components of the system, the interactions among the components and their dependencies.*
- *Identify and describe each component (including subcomponents if any), their interactions and dependencies clearly.*
- *Specify the user interaction model.*

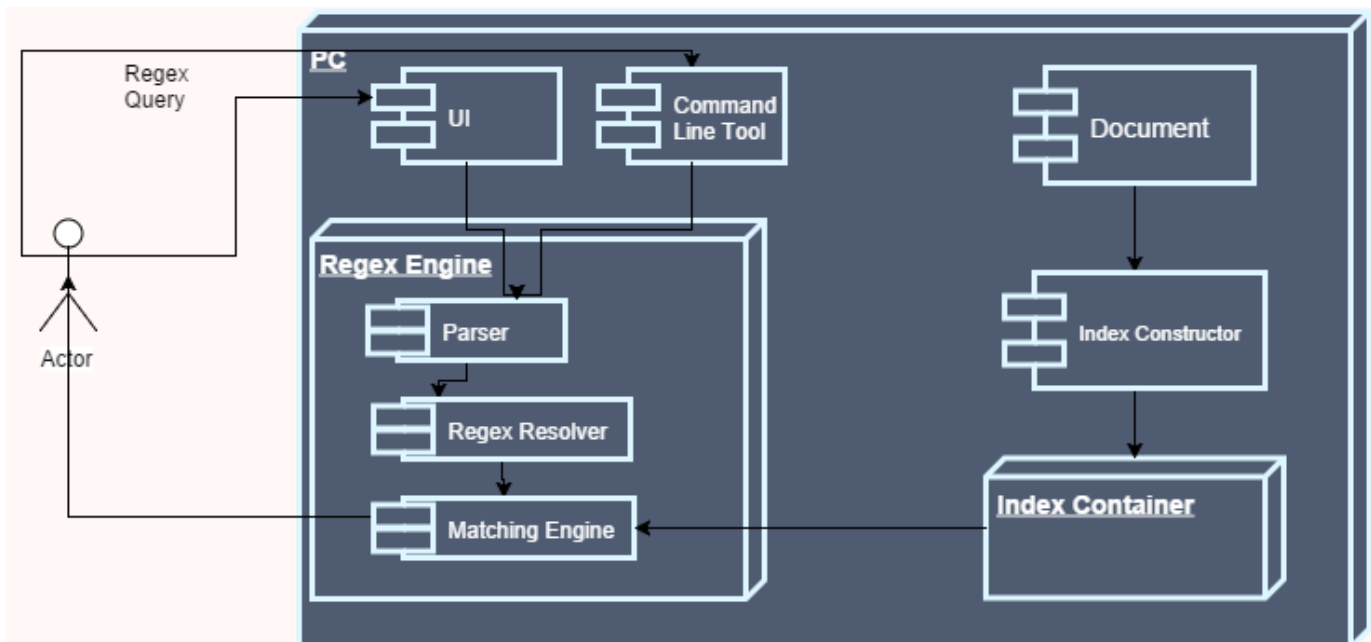


Figure 1: System Architecture Deployment Diagram

UI: User Interface that lets users interact with the application through interface

Command Line Tool: This works as a terminal command that starts the program in the terminal.

Regex Engine: There are three components in this node each of which serving a different task.

Parser component parses the user regular expression inputs into sub regex components.

Regex Resolver uses these sub components, resolves them and gives them to the matching engine.

Matching Engine gets the input and uses indexes to output a result set to the user.

Index Constructor and Container: Index constructor gets documents to construct an index out of them. Then these indices contained in an index container.

2. Tentative Time Plan

- Identify and itemize *all tasks* to be performed as a team in the *first semester*. Assign a unique TaskID for each task. Give a short name and brief description for each identified task.

TaskID	Short Name	Description
T1	Literature Research	Group members will search through the resources related to the project topic.
T2	A demo code	Implementing a simple part of the project to be able to get familiar with regular expressions and search without using indices.
T3	Indexing Mechanism	Getting into specific and thorough research on indexing algorithms that will be implemented in the second term and their superiority over the contemporary regex search engines in respect of efficiency and memory management.
T4	Website	Project's website
T5	SRS	Software Requirement Specification documentation is planned to be completed.

- Construct your time plan as a simplified Gantt chart, as shown in the following table.

	Iteration1	Iteration2	Iteration3
T1	■		
T2		■	■
T3	■	■	■
T4			■
T5			■

3. Deliverables

- *Identify and list all deliverables of your project for the first 3 sprints.*
- *A deliverable is some component or sub-component, which is running and demonstrable to your assistant and your supervisor. That deliverable is of course subject to improvement over time.*
- *Fill in the following table:*

Deliverable	Description	When? (Sprint#)
D1	Parser	At the end of #2
D2	Benchmark	At the end of #3
D3	Regex Resolver	At the end of #3
D4	Matching Engine	At the end of #3
D5	Command Line Tool (demo)	At the end of #3
D6	Website	At the end of #3
D7	SRS	At the end of #3

*Tentative

4. Workload Distribution

Fill in the following table to distribute the workload for the first semester among your team members.

	Sprint – I	Sprint - II	Sprint - III
Fatih Burak Belce	T1, T3	T3, D1	T2, T3, T4, T5, D7, D6, D2
Mustafa Güven	T1, T3	T3	T2, T3, T5, D7, D5, D3, D4
Oğuzhan Demir	T1, T3	T3, D1	T2, T3, T5, D7, D2, D4
Özgür Baskın	T1, T3	T3	T2, T3, T4, T5, D7, D5, D6, D3

*Tentative