

# Project: Performance Optimizing

Team members and roles:

Name	Role
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Vlad-Gabriel Enachi	<b>Developer</b> <ul style="list-style-type: none"><li>• data request responsible</li><li>• rest API service and web client responsible</li></ul>
Andrei Hulparu	<b>Tester</b> <ul style="list-style-type: none"><li>• data source responsible</li><li>• testing responsible</li></ul>

Team project **github** source: <https://github.com/eVoRisk/MSDPerformanceOptimizing>

Repository owner: Vlad-Gabriel Enachi

# Requirements Analysis

## Establishing the limits of the application

The **purpose** of the project is the designing and development of a web-based profiling service based on the sampling and instrumentation methods and offer access to the user for the metrics and diagnosis reports.

The **limits** of the service will be:

- the user will be able to load only one java class
- the reports will be stored and printed only in text/html format

## Specifying requirements

### Client requirements

- two main components: a client and a web service
- the application must manage multiple users each with its own data and reports
- the clients must be able to register new accounts and login using an username and a password
- the users must be able to load java classes on the web
- the users must be able to choose method for the profiling
- the users should have access to the generated reports

### System requirements

- the client application and the web service (both written in Java) need to perform complex profiling operation
- the client application must exchange data with the server through the network
- the web service must expose a REST-based API for registering users, logging in, storing data and retrieving reports

### Actors

- the client application
- the web service
- the users
- the database server

## Use case scenarios

### The user wants to register

1. user clicks on the register button
2. the user enters the username, the email and the password
3. the user clicks on the “Sign Up” button
4. if the user typed a valid username and password, he will be redirected to the main page
5. if the user didn't type a valid username or password, he will get an error message and will remain on the same page

### The user wants to login

1. user clicks on the login button
2. the user enters the user and the password
3. the user clicks on the “Login” button
4. if the user typed a valid username and password, he will be redirected to the main page
5. if the user didn't type a valid username or password, he will get an error message and will remain on the same page

### The user wants to profile a java class

1. first, the user needs to be logged.  
If the user is not logged in then he will be redirected to the login page.
2. the user will load the java class and then needs to choose a profiling method, sampling or instrumentation
3. once the user has entered the data and selected the method, the “Start Profiling” button will be enabled and he will be able to generate the report and present the output and in the same time send the file the web service.

### The user wants to search on the saved reports

1. first, the user needs to be logged. If the user is not logged in then he will be redirected to the login page.
2. the user will have access to a list of his reports with the possibility to open or save a report.