

School of Engineering and Applied Science, Ahmedabad University
Cloud Computing
Project Report - 1
Group – 2

Mentor: - Dr. Sanjay Chaudhary

Title: - Cloud Based Compiler

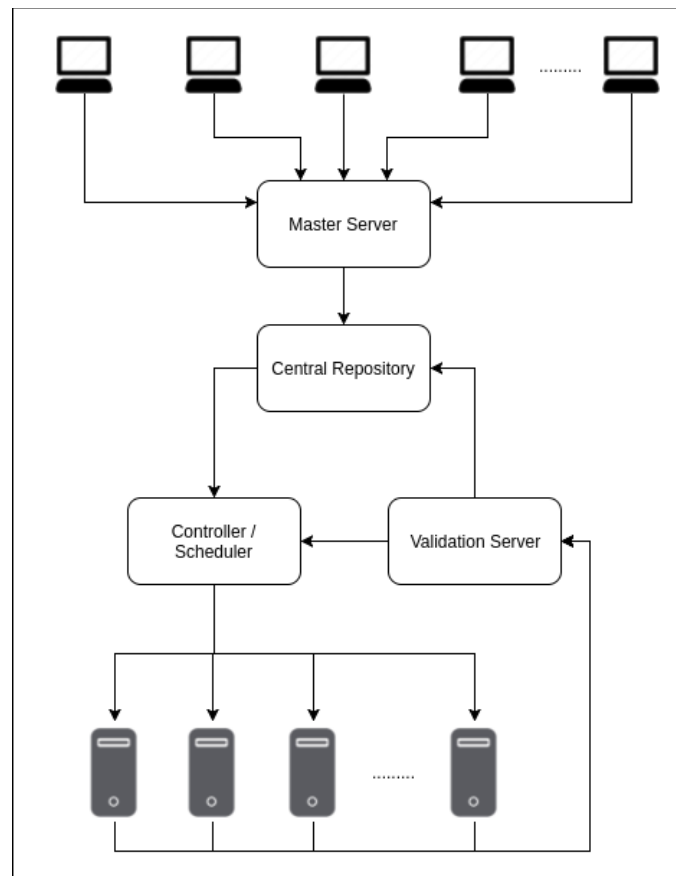
Introduction

Build cloud based web application that provides developer an interface which helps in code compilation, execution, analysis and also provides code optimisation related suggestion if required in code.

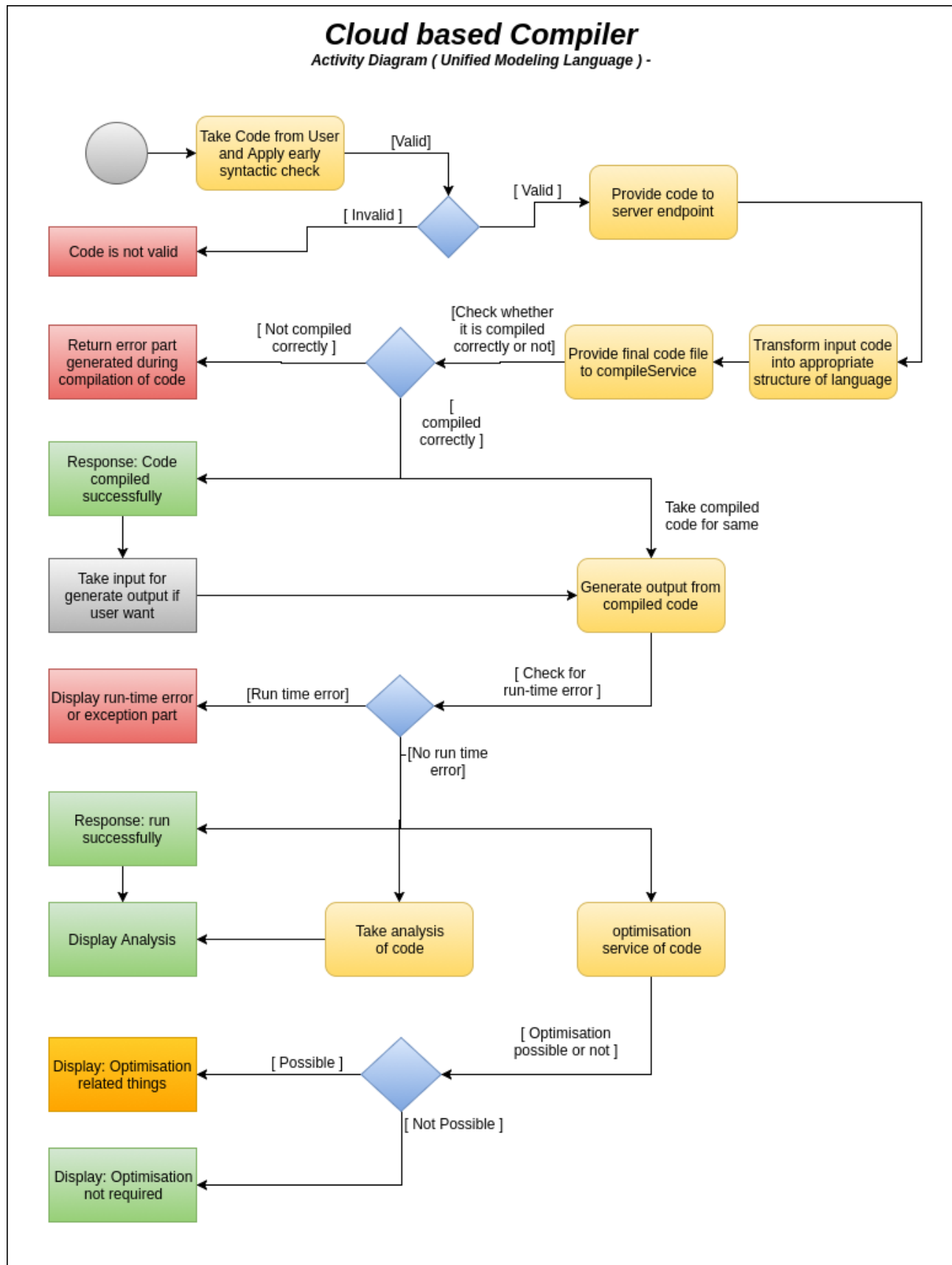
Services

- Service related to code compilation
 - If code is compiled successfully then service related to execution of code
 - Provide analysis of code like how much memory is used, how much time taken by code for execution etc.
- If code is compiled and executed successfully then code optimisation service will be executed and it will suggest user possible ways to optimize code if required.

Architecture



Logical Design

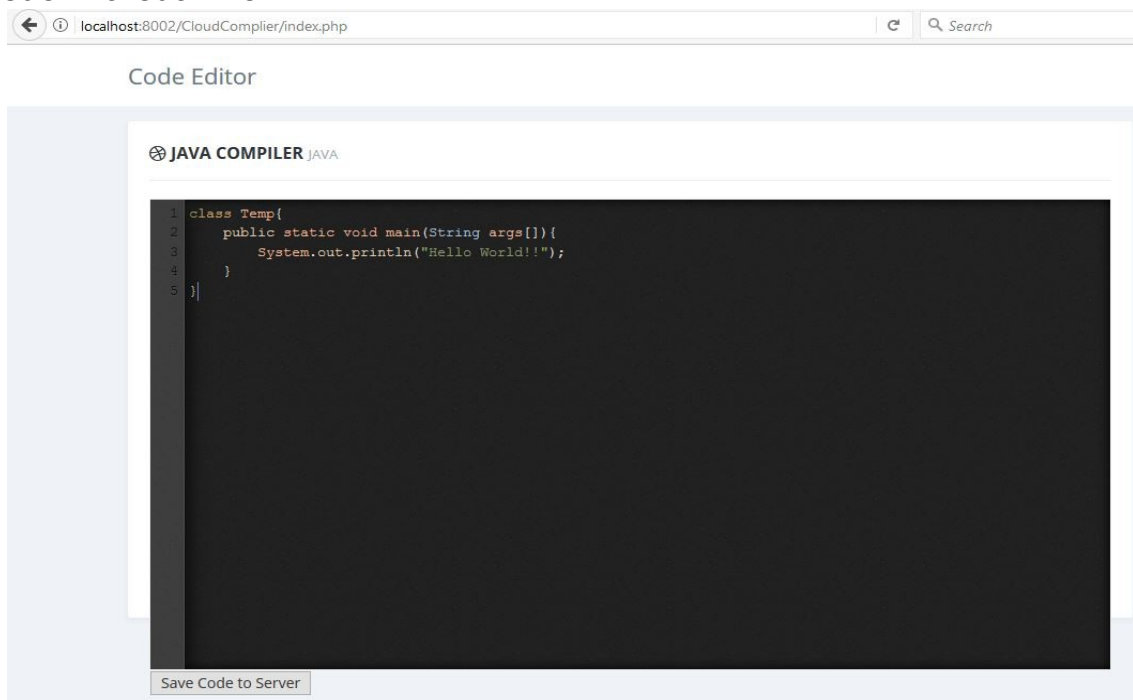


List of Programs/Modules

- **Services related to user login/registration**
 1. User Authentication
 2. User Registration
 3. Forgot Password
 4. Email verification
 5. Update log for user login
- **Services related to code storage**
 1. Allocate PC
 2. Update Database
 3. Update the user log for storage
- **Services related to code compilation**
 1. Select CompilerType
 2. Allocate Compiler
 3. Compile Code
 4. Check status of compilation of code
 5. Send the output/error of compilation to user
 6. Update the user log for compilation
 7. Optimization of code
- **Services related to code run**
 1. Select CompilerType
 2. Allocate Compiler
 3. Take input file from user (if needed)
 4. Run Code
 5. Send runtime error(s) to user (if occur)
 6. Send output to user (After successful execution)
 7. Update the user log for code run
- **Services related to user logout**
 1. Logout user
 2. Terminate Session
 3. Update log for user login

Snapshots

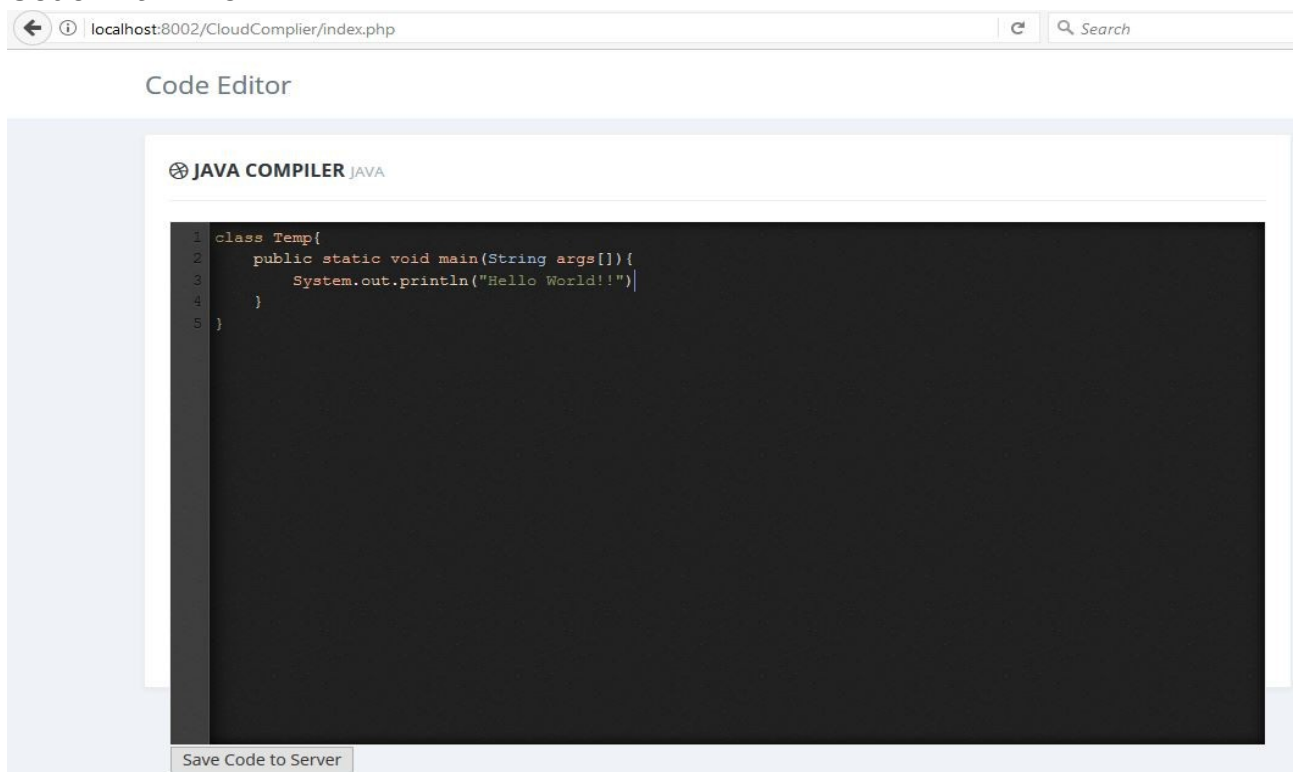
- **Code Without Error**



- **Code Output**
 - o **Successful Compilation**



- **Code With Error**



- **Code Output**
 - o **Error**



- Code for storing file in repository has already been implemented and we have started implementing database which will maintain all the file indexing and logs.
- Our main task is to handle con-currency through virtualization and to implement code optimization services.

Team Members

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References

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