WEB BASED IDE PROJECT

PROJECT SYNOPSIS

OF MAJOR PROJECT

BACHELOR OF TECHNOLOGY

COMPUTER SCIENCE

SUBMITTED BY

Zunaira Khan

SUPERVISOR

ASFIYA AZIZ

JAMIA HAMDARD

SCHOOL OF ENGINEERING SCIENCES AND TECHNOLOGY HAMDARD NAGAR, NEW DELHI, DELHI 110062

• ABSTRACT: -

It is often seen that the Program Developer, who writes the code of a particular project, has to carry the whole environment for the particular project to present it in front of anyone. This particular environment includes the particular software on which the code runs and also the databases. So, the developer has to be equipped with all the necessary resources even if he wishes to test his code by himself. To his rescue here we present a Web Based IDE which solves his many problems. The Developer just needs a web browser and an internet connection to access, modify and test his code. Thus, saving his time and reducing the cost to create the environment wherever he goes.

• MOTIVATION: -

Purpose

➔ To execute any program we require a software development kit (SDK) of that particular program to execute the code/program. Sometimes there is requirement of setting path variables also. The purpose of this project is to provide an easy-to-use web service providing many powerful feature of desktop IDEs by combining with the power of Cloud Computing for application developers and minimizing their efforts of installing SDK for different languages.

➔ The Program Developer, who writes the code of a particular project, has to carry the whole environment for the particular project to present it in front of anyone. A compiler that is to be installing manually on every system physically requires a lot of space and also configuration. We need to install different compiler on each language on which we wish to work. To avoid these drawbacks there is need to develop the web-based compiler to execute the programs.

Several problems with the current system have been identified, the web based online integrated development environment would additionally improve communication between developer and the system in which they work into. This will also help people involved into competitive programming because the program can also be used as an online judge for their code. It will improve efficiency, freezing developer to concentrate on their primary job functions rather than repetitious SDK installation and compromising with their hardware storage.

• OBJECTIVES: -

IDE is the Integrate Development Environment which provides the environment to execute particular program of any language. Online or web-based IDE is an online compiler which allows you to compile source code and execute it online in more than one language. By using web-based IDE, we can store our code online in database and access them using internet connection. It is always been difficult for programmer to organize a work on project across a variety of location especially working team. Because each member of team has to send their code to every other member. The software contains a

system that has text editor and terminal. The user would be given an option to select the language in which they want to compile the program. The software will compile the program and return the output to the user.

• <u>METHODOLOGY: -</u>

1. The project maintains two levels of users: -
    a. Administrator Level
    b. User Level
2. Main features available in this project are: -
    a. Virtually every IDE will have a text editor designed to write and manipulate source   code.
    b. Simple interface with language-specific syntax highlighting.
    c. IDEs are typically specific to a single programming language, but with online ide we can Choose multiple programming languages first step is to figure out which languages you will be coding in and narrow your prospective IDE list down accordingly. Examples include Python, and Java IDE tools.

• <u>FACILITIES REQUIRED FOR PROPOSED WORK: -</u>

A) Hardware Components:

Intel® Core™ i5-2450M processor, 4GB3 DDR3 SDRAM at 1600MHz, 500GB 5400RPM SATA Hard Drive

B) Software Requirement:

> Form Design (HTML 5.0, CSS, JS)
> Coding (Python)
> Framework (Django)
> Reporting Tool (Data Report)

C) Server Requirement:

OS (LINUX)

4GB ram

500 GB HDD

Compilers, SDK: G++, GCC, JDK, PYTHON and Django

➔ **ACE EDITOR (JAVASCRIPT)**
Ace is a standalone code editor written in JavaScript. The goal is to create a web-based code editor that matches and extends the features, usability, and performance of existing native editors such as Text Mate, Vim, or Eclipse. It can be easily embedded in any web page and JavaScript application

.