MINOR PROJECT

SYNOPSIS

ON

AUTOCORRECT-A SYNTAX ERROR REMOVER FOR C++

Submitted By

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September-2018

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Project Proposal Approval Form (2017-18)

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Project Title: **AUTOCORRECT-A SYNTAX ERROR REMOVER FOR C++**

Abstract:

In computer science, a **syntax error** is an error in the syntax of a sequence of characters or tokens that is intended to be written in a particular programming language.This is a c program which lets you helps you to remove syntax error in c++ source code file. The program also allows you to store new words in the dictionary.After the reading of the dictionary file is complete, the program prompts the user for input. After input is obtained, each word that the user enters into the program is looked up within the hash table to see if it exists. If the user entered word exists within the hash table, then that word is spelled correctly. If not, a list of possible suggested spelling corrections is displayed to the screen.

Keywords: Syntax, error, source code, hash table.

Introduction:

Finding violations of secure coding guidelines in source code is daunting, but fixing them is an even greater challenge. We are creating automated tools for source code transformation. Experience in examining software bugs reveals that many security-relevant bugs follow common patterns (which can be automatically detected) and that there are corresponding patterns for repair (which can be performed by automatic program transformation). For example, integer overflow in calculations related to array bounds or indices is almost always a bug. While static analysis tools can help, they typically produce an enormous number of warnings. Once an issue has been identified, teams are only able to eliminate a small percentage of the vulnerabilities identified. As a result, code bases often contain an unknown number of security bug vulnerabilities. This blog post describes our research in automated code repair, which can eliminate security vulnerabilities much faster than the existing manual process and at a much lower cost. While this research focuses to the C++ programming language, it applies to other languages as well.

Problem Statement:

We generally do syntax error mistakes while writing a code and it takes time to find each error and correct it . This program helps to find syntax error mistakes and to correct them automatically .

Literature Review:

An Integrated Development Environment is an application that encourages application improvement. By and large, an IDE is a graphical UI (GUI)- based workbench intended to help an engineer in building programming applications with a coordinated domain joined with all the required apparatuses within reach.

Most basic highlights, for example, troubleshooting, form control and information structure perusing, help a designer rapidly execute activities without changing to different applications. Subsequently, it amplifies efficiency by giving comparative UIs (UI) for related segments and decreases the time taken to take in the dialect. An IDE underpins single or numerous dialects.

An incorporated advancement condition (IDE) is a product application that gives far reaching offices to PC software engineers for programming improvement. An IDE regularly comprises of a source code editorial manager, manufacture computerisation instruments, and a debugger. Most present day IDEs have shrewd code finishing.

The idea of IDE developed from basic order based programming which was not as helpful as menu-driven programming. Current IDEs are generally utilised with regards to visual programming, where applications are immediately made by moving programming building squares or code hubs that produce flowchart and structure outlines, which are gathered or translated.

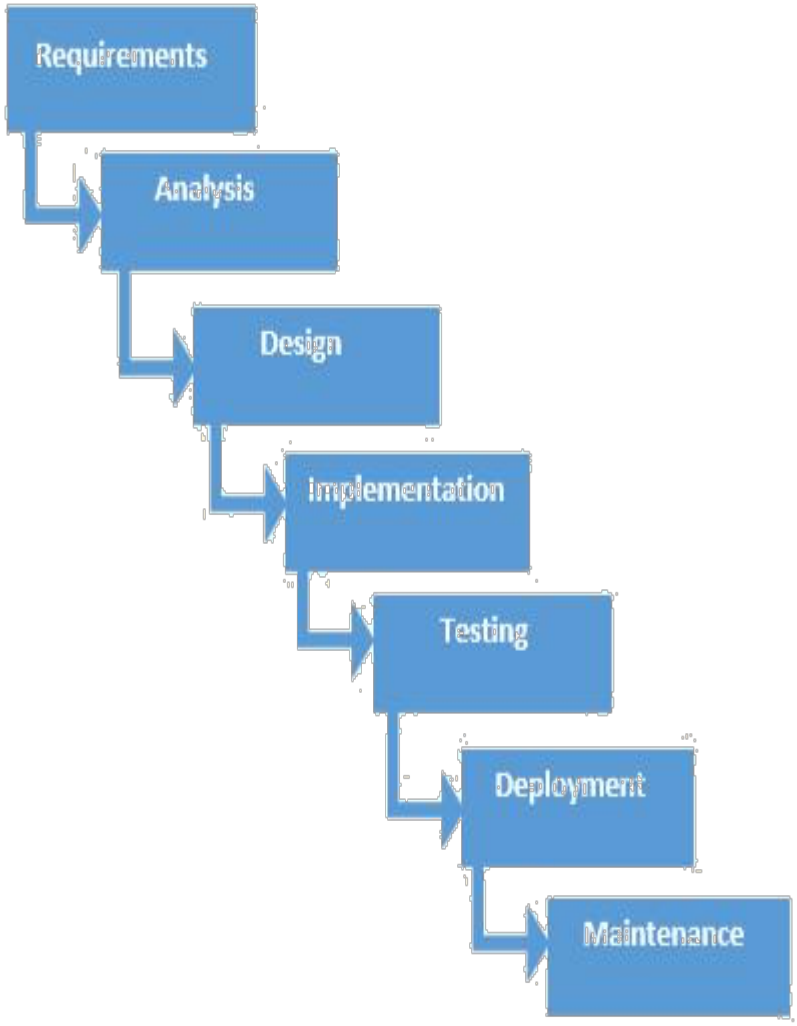
Choosing a decent IDE depends on factors, for example, dialect bolster, working framework (OS) needs and expenses related with utilising the IDE and so on.

Objectives:

- Find syntax errors in source code.
- Find the correct word for found syntax error from dictionary.
- Replace the found word with the syntax error.

Methodology:

For the optimal design, planning, implementation and achievement of the project objectives, waterfall model is being used. It is a sequential model with each phase dealing with series of tasks and distinct objectives. By separating the set of concerns, the large and complex task of building the software is broken into smaller tasks which make it easier to handle. The output of each phase becomes the input for the next, this helps in keeping track of the work done at each stage.



- The first stage is gathering the requirements- Capturing the requirements and expectations from the software. Our requirement is to remove syntax errors and to check spelling mistakes.
- Analysis- Doing the requirement feasibility test to ensure the goal is achievable.
- Design- Deciding upon the algorithms to be used for the software building. Different algorithms are to be used here. All the software and hardware requirements need to be specified. The software is to be built using C programming.
- Implementation- This phase deals with the actual coding part of the software.
- Testing- Different test cases are tested in this phase. The software is tested for any faults or failures.
- Deployment and Maintenance- Patching the issues, updating with new latest features are incorporated in this stage. Basically, making sure the software is working properly in all the possible environments.

System Requirements:

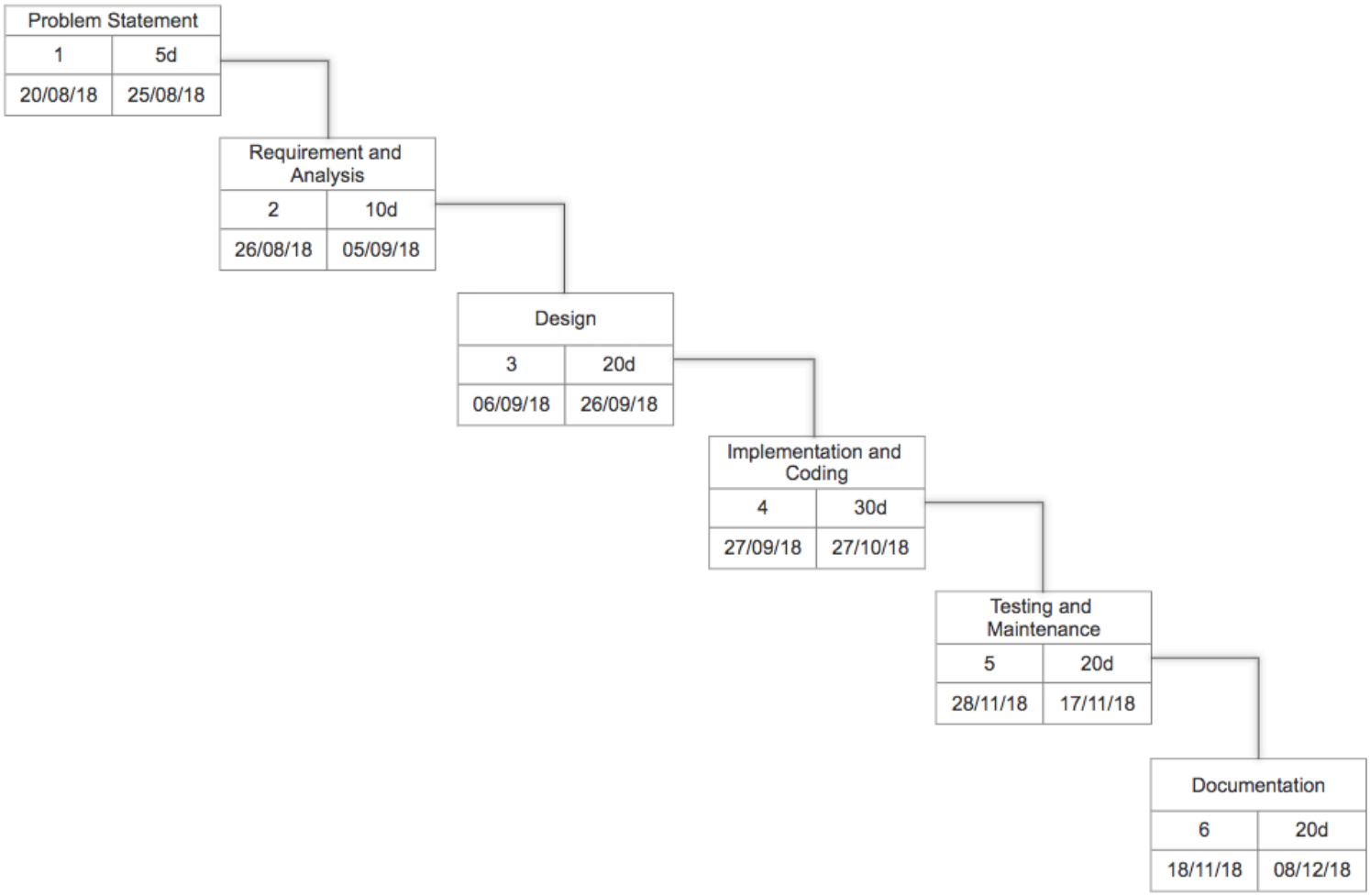
Software Requirements

Operating System	:	Windows 8 and above
Programming Language	:	C
Compiler	:	GCC

Hardware Requirements

Processor	:	Pentium IV
Disk Drive	:	Floppy or Hard Disk Drive
RAM	:	4 GB
Monitor	:	with 80 columns

Schedule: (PERT Chart)



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Approved By

(Name & Sign) **(Name & Sign)**

Project Guide **Department Head**