

# Process Plan– Team 17

## 1 Introduction

The goal of this project is to create a software application that will calculate the average number of words per sentence in a text document. The target users for this application will be college students seeking to analyze their essays. It should be useable for users with below average technical skills and it should allow the user to customize several analysis parameters.

## 2 Process Description

- **Create Requirements:** The stakeholders of the project will provide information about the needs for the project. This information will be compiled into specific requirements for the project. These requirements should represent all of the needs of the customer without including irrelevant information.
  - **Entrance Criteria:** Requirements will be built based on information gathered from customer interview, T-Square assignment information, and instructor responses in Piazza
  - **Exit Criteria:** Requirements will be considered complete when team members agree that they capture all pertinent information from the above sources of information
- **Design Software:** The software design specifies how the software system will be built to fulfill all of the requirements. The design usually has two main components, a high level design, showing the major components of the software system and a physical design, which creates a detailed technical plan for the software.
  - **Entrance Criteria:** The design will be created based on the system requirements, so the design phase will only start after the requirements have been finished.
  - **Exit Criteria:** The design phase will be finished once the software design document details a design that fulfills all project requirements.
- **Develop and Debug Software:** The software will be developed based on the software design document. The fully developed software will be representative of the detailed software design.
  - **Entrance Criteria:** Since we are following a waterfall process, the design document should be completed before development begins.
  - **Exit Criteria:** The development phase will be considered complete when the software is implemented as specified in the design and captures all functionality listed in the requirements.
- **Test System:** The system will be tested to ensure that it meets all requirements listed in the requirements document. Test cases will be written for all functional requirements. These test cases will then be checked with JUnit unit testing.
  - **Entrance Criteria:** Software testing will require the completed application along with input text files to test word count functionality.
  - **Exit Criteria:** Testing will be considered complete when the application is shown to successfully fulfill all requirements without errors.

- **Maintain Software:** Software maintenance occurs after the software has been completed and delivered to the customer. Maintenance may involve fixing bugs that were missed in testing phase, or it may involve adding new functionality as requested by the customer
  - **Entrance Criteria:** The maintenance phase starts after a completed software system is delivered to the customer
  - **Exit Criteria:** This phase may continue as long the company or project team chooses to support the software. If the project team is still supporting the software, then bug fixes may be necessary at any time or new features may always be requested by the end user.

### 3 Team

- **Team Members:**
  - Sunitha Dasari
  - Christopher Shultz
  - Elena Zlatopolsky
  - Josh Killingsworth
- **Roles:**
  - **Project Manager:** The project manager will facilitate meetings and project planning. They will be responsible for making sure project components are delegated to team members and are being completed on schedule. The project manager will confirm that all required files are completed, checked into GIT repository, and submitted to T-Square before assignment deadline.
  - **Development Lead:** The development lead will take on the primary responsibility for software development. The activities of the development lead will include both software development and delegation of development activities to the appropriate team members. To comply with waterfall process, they should ensure that all requirements have been completed before software development begins. The development lead will also ensure that all software files have been checked into the final repository revision.
  - **QA Manager:** The QA manager is responsible for software quality. Their primary job will involve developing test cases and delegating test case development whenever necessary. The QA manager will make sure all test cases pass successfully and they are finished by the assignment deadline and included in final repository.
  - **Documentation Lead:** The documentation lead will be responsible for writing quality documentation and delegating documentation duties whenever necessary. They will also ensure that all documentation has been assembled and included in final repository revision.
  - **Developer:** All developers will be responsible for some portion of the software development. They will write software in accordance with the requirements document and fix errors that are found in the testing phase of the project.
- **Role Assignment Matrix:**

	Project Manager	Development Lead	QA Manager	Documentation Lead	Developer
Sunitha Dasari			X		X
Christopher Shultz				X	
Elena Zlatopolsky		X			X
Josh Killingsworth	X				

#### 4 Estimates

- **Total Estimates:**

- Total Effort Hours: 15 hours
- Total Lines of Code: 150

- The above estimates are based on the following breakdown of project tasks:

Activity	Estimated Effort Hours	Estimated Lines of Code
Project Requirements	2	N/A
Input Parsing	3	50
Read Input File	2	10
Sentence Length Calculation	3	40
Test Cases	3	50
User Documentation	2	N/A
<b>Totals:</b>	<b>15</b>	<b>150</b>