

# **SOFTWARE REQUIREMENT** **ENGINEERING**

## **ASSIGNMENT # 1**

### **GROUP MEMBERS:**

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# **QUESTION 1**

## **MS WORD**

Microsoft Word is the word processing application that is commonly used to add,edit,and format the documents and reports.MS Word provides users different tools for managing the document in different sizes,different colors.Using this application user can easily make the document more interactive by adding different images,characters and symbols. MS Word is used in different fields like in the field of education,in offices.This application also provides the functions for converting the document in different formats (doc,pdf,txt).

### **1)HOME MENU**

#### **FUNCTIONAL REQUIREMENT**

System should be able to add and show the text on the page .

System should change the font of the text

System should bold the text font.

System should makes the text Italicize

System should underline the given text

System should align the text to given position (inputted)

#### **USER STORIES**

As a business analyst I want from the system that when I enter any text it should be displayed on the page so that I can create my document.

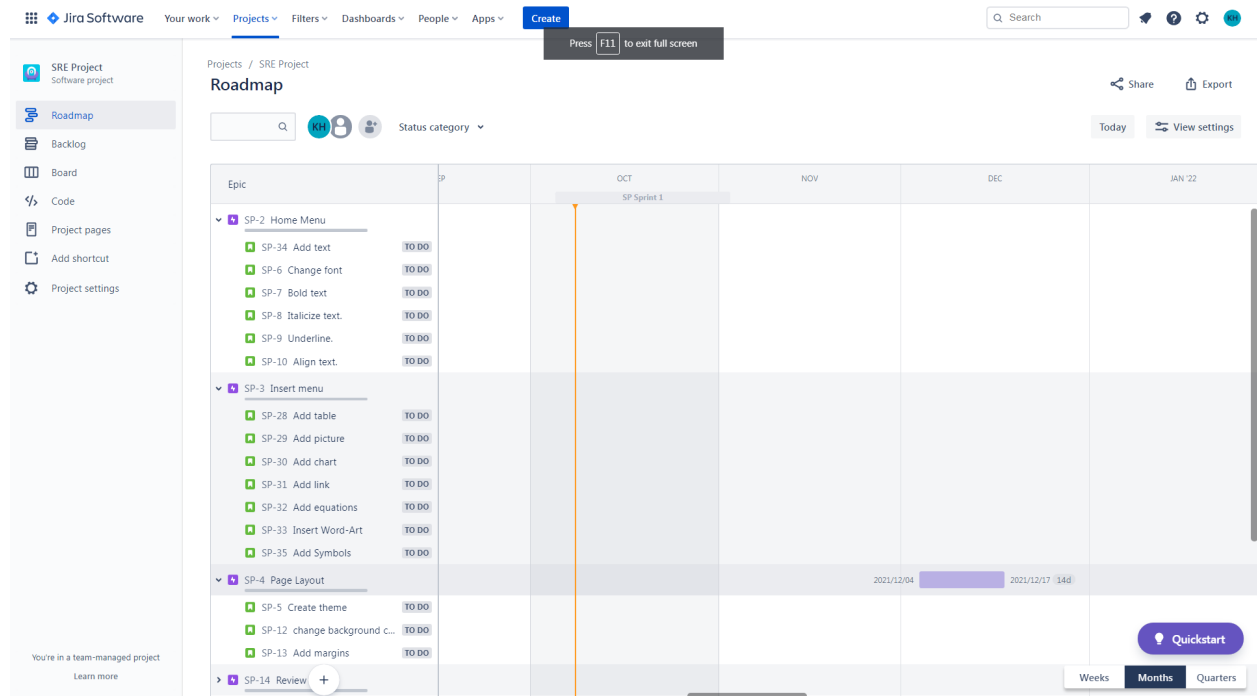
As a business analyst, I want the function to be able to change the font of the text so that users can change the font of the text.

As a business analyst, I want the function to be able to bold the text so that users can change the text to thick.

As a business analyst, I want the function to be able to make the text italicize so that users can make the text stylish.

As a business analyst, I want the function to be able to underline the text so that users can place a line under the text for heading or any other text.

As a business analyst, I want the function to be able to align the text to any inputted position so that users can change the alignment.



## 2)INSERT MENU

### FUNCTIONAL REQUIREMENT

System should be able to add pictures to the doc.

System should be able to add any size table to the doc.

System should be able to add charts to the doc.

System should be able to add hyperlinks to any webpage.

System should provide the list of math equations.

System should provide a different design for Word art.

System should be able to add different symbols,characters.

### USER STORIES

As a Business Analyst, I want a function that can add the pictures to the doc, so that users will be able to use images for presentation.

As a Business Analyst, I want a function that can add multiple tables to the doc, so that users will be able to make schedules or separate information in portions.

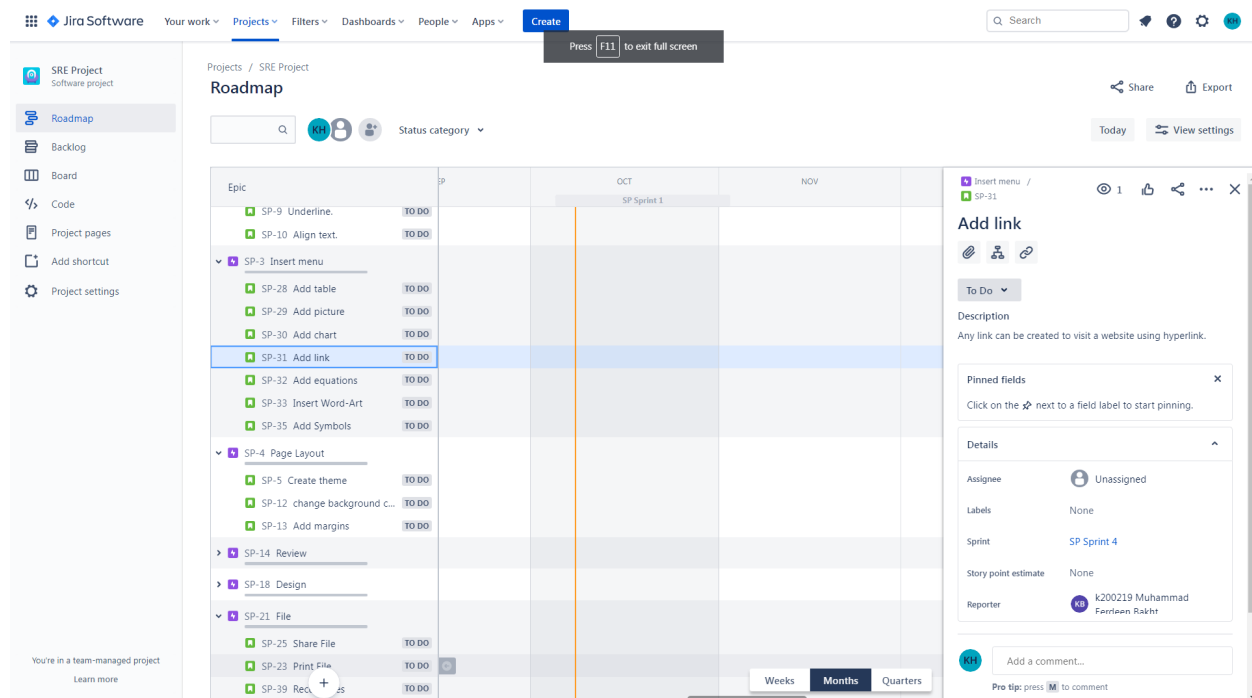
As a Business Analyst, I want a function that can add different charts in the doc, so that users will be able to use charts for flow charts in programming or any task.

As a Business Analyst, I want a function that can add the hyperlinks to the doc, so that users will be able to connect their document to another website or any document.

As a Business Analyst, I want a function that can use math equations in the doc, so that users can display math equations and solve them manually.

As a Business Analyst, I want a function where users have a right to design the text from given themes, so that users can beautify their document accordingly.

As a Business Analyst I want a function where users can easily find different symbols and characters from other languages so that user can easily manipulate different symbols that are not available on the keyboard..



### 3) PAGE LAYOUT

#### FUNCTION REQUIREMENT

System should be able to apply theme on the page

System should be able to change the background color

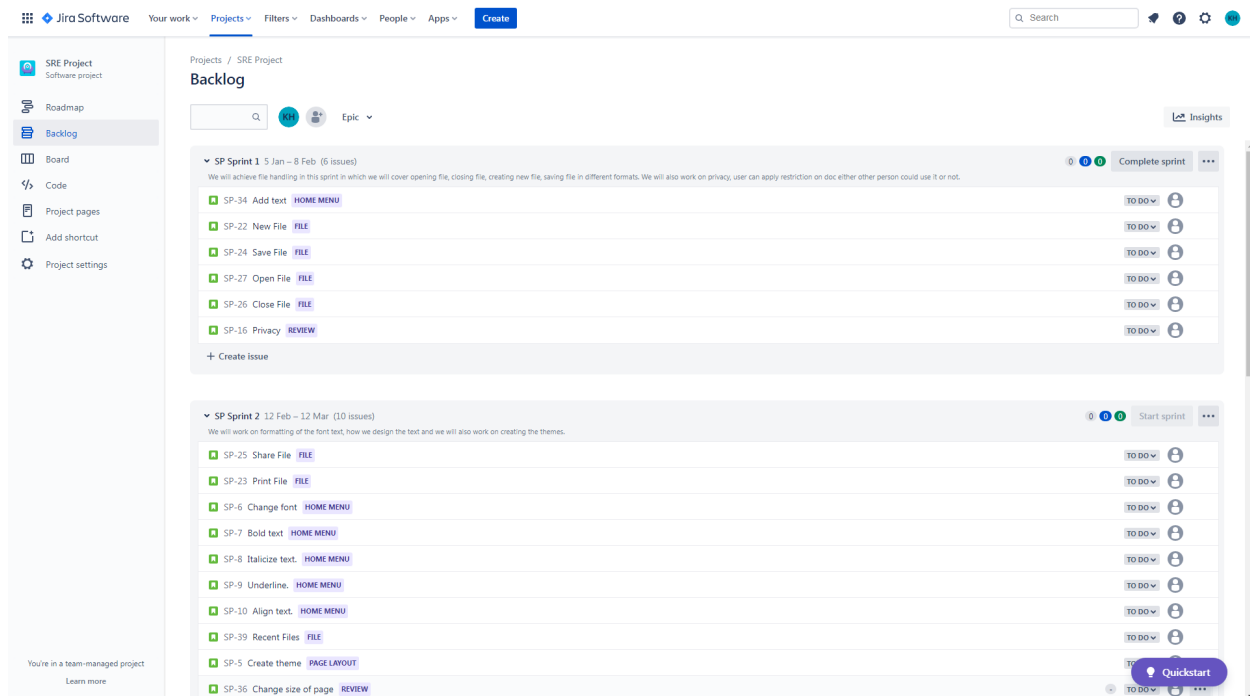
System should be able to provide margins in respective dimensions.

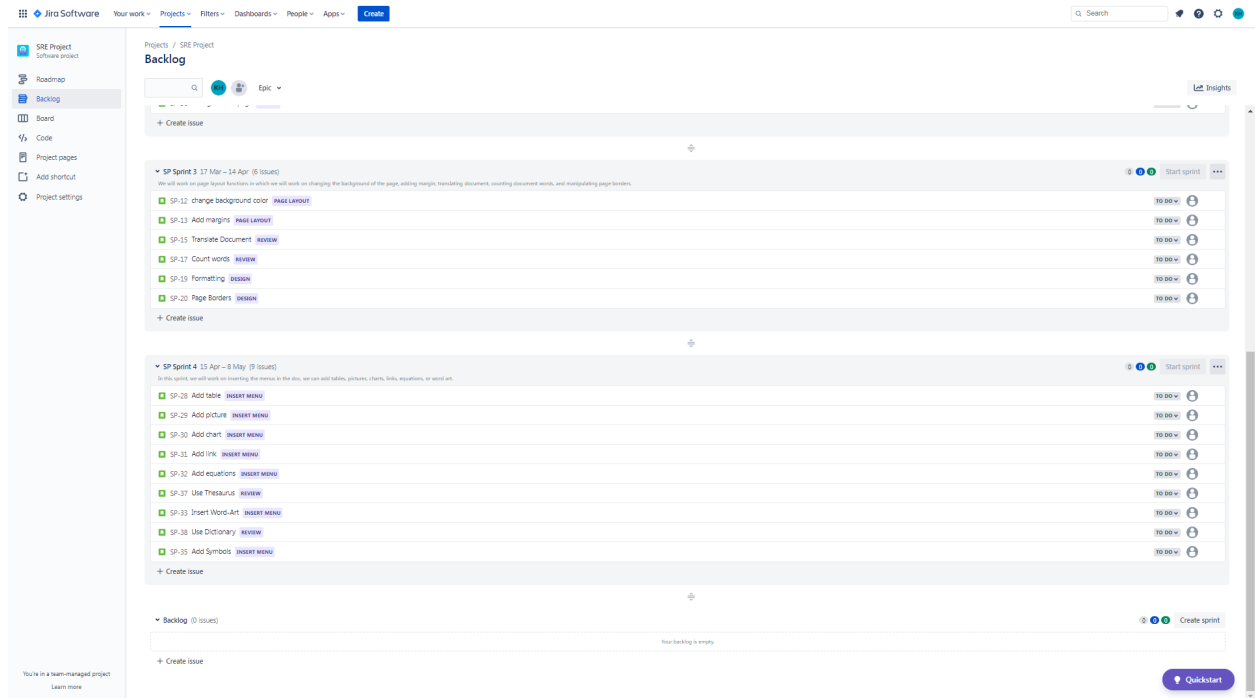
## USER STORIES

As a Business Analyst I want a function that can apply themes in my document so that i can decorate my document.

As a business analyst I want a function that can change the background color so that I can view the document in different visibility as I want.

As a Business Analyst I want a function that provides users different margins in required dimensions so that I can wrap out the document in required size





## 4)REVIEW

### FUNCTIONAL REQUIREMENT

System should be able to change the size of pages in required dimensions.

System should be able to translate the document.

System should be able to count the number of words of the doc.

System should be able to restrict editing of the document.

System should be able to show the meanings of the given word in Thesaurus.

System should be able to search and display the meaning of words from a dictionary .

### USER STORIES

As a Business Analyst I want a function that gives the user different size of the page with respect to user requirement so that the user can easily orient the page size in landscape and in portrait.

As a Business Analyst, I want a function that can translate the whole document to a given language, so that users can easily access the document in their own language.

As a Business Analyst, I want a function that can count the number of words in the doc, so that users can easily count the number of words for essay writing.

As a Business Analyst, I want a function that can restrict the document in editing, so that users will be able to use images for presentation.

As a Business Analyst I want a function that provides the user the meaning of a given word in the different languages So that a user can easily understand the meaning of words in the required language.

## **5)DESIGN**

### **FUNCTIONAL REQUIREMENT**

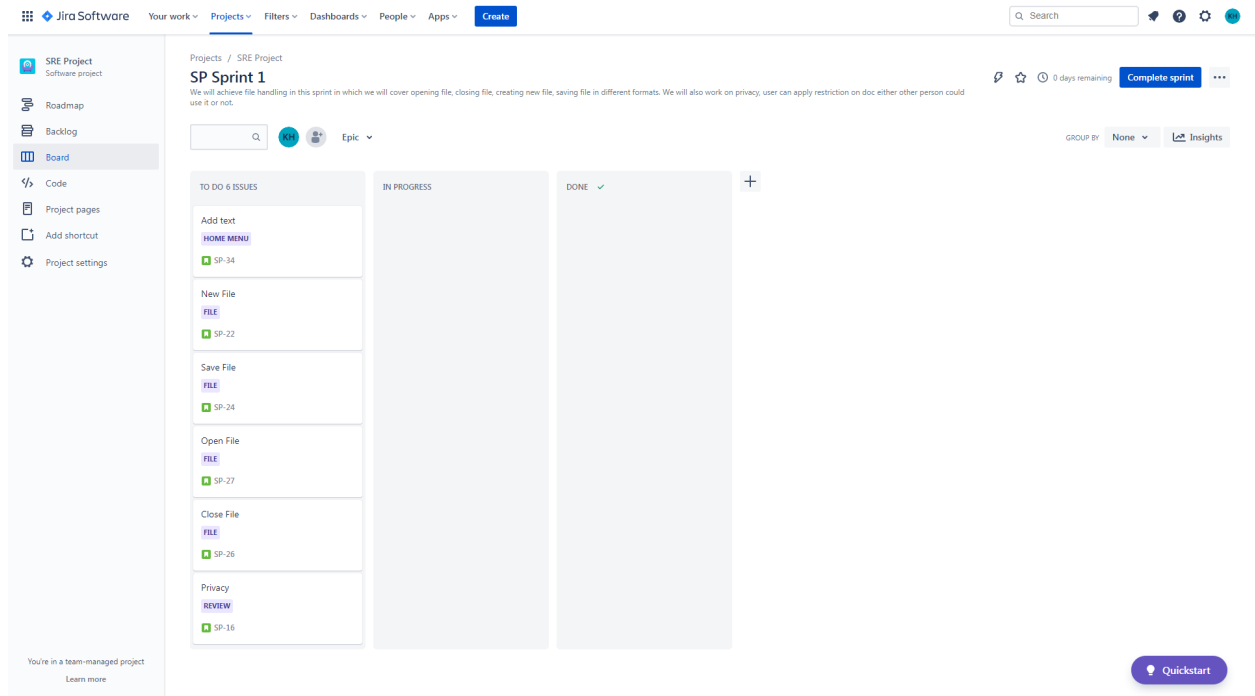
System should be able to format the document in different styles and change the font and spacing of the page.

System should be able to change border size, border color, radius and style of the border with respect to user requirements.

### **USER STORIES**

As a Business Analyst I want a tool that can format the document in different styles and change the font and spacing of the document page so I can frustrate my document in clear hierarchy and structure.

As a Business Analyst I want a function that allows me to change the border of the page and also provide me different border sizes so that user can settle the words in fixed area and easily print out the document



## 6)FILE

### FUNCTIONAL REQUIREMENT

System should be able to add a new file for editing.

System should be able to Save the existing file.

System should be able to open the existing file from other locations.

System should be able to close the current file on clicking the close button

System should be able to open recent files from the computer.

System should be able to give access to different media platforms for sharing files.

System should be able to print the document in different formats(pdf,doc,txt).

### USER STORIES

As a Business Analyst I want a function that can add the new file so that users can easily create new documents.

As a Business Analyst I want a function that can save the existing document So that a user can easily save the document for future use.

As a Business Analyst I want a function that open the existing file from other location so that a user can reuse and edit the Existing document.



As a Business Analyst I want a function that can close the current document or file by clicking the close button so that the user can close the document.

As a Business Analyst I want a function that open the recent file that user just close it so that the user can get fastly access to the recent file.

As a Business Analyst I want a function that provides a user directly access to different media platforms for sharing the file so that a user can easily share and publish the document for different purposes.

As a Business Analyst I want a function that allows user to print the file and document in different formats ( pdf,docs) so that a user can easily print the document in a format that he wants.

**JIRA LINK:**

<https://mysreproject.atlassian.net/jira/software/projects/SP/boards/1/roadmap?atlOrigin=eyJpIjoiMzE2N2E5N2U5MGI0NGNhZmFIN2M3ZTM4ZWFINzc2M2IiLCJwIjoiJ9>

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## **Question 2**

### **2.1**

There are many organizations that have different methods of gathering information or of requirement engineering processes. The actual thing in the market these days is customer behavior (how customers behave in a real world), companies or organizations identify the behavior of the customer and make the rules and processes according to their responses. For example, if interviewing the customer is not the best option, then the organization may proceed with a different technique to process those required information. That is why every organization varies in gathering the information (requirement engineering).

### **2.2**

The Coarse -Grain activity model provides the overall image of the process. It also provides the context of different process activities. It depends on the domain of the service. This model serves a single service or unit of the process. While Fine grain activity model provides more details of the specific process. This model helps us to understand the working of the specific process and improvement in the process. Both models have different roles in the organization. Coarse Grain model manages large size services and it is difficult to change it while Fine grain model manages subunits and multiple services.

## 2.3

Waterfall model of the software process is not an accurate reflection of the detailed software process in most organizations because in this model when once the application is made it is very difficult to change its requirement and many customers do not clearly describe the requirement in the beginning stage because it is difficult to calculate the size, duration and cost of the projects. So the change in the project are very expensive and required long duration.

While in a spiral model It is easy to change the requirement once the implementation is occurred. Customers and developers easily understand the requirements and risks at every evolutionary level. Spiral model is good for customer satisfaction because we involve him in the development stage.

## 2.4

It is very important to understand the role of people involved in the requirements engineering process because sometimes there is a lack of clarity in requirement due to which people waste their time on dealing with things that are not important and as a result they cannot keep track of important things. If domain expert does not understand his responsibility he is not able to provide information about the system and problem may not be resolved. Similarly if the requirement engineer does not specify the requirement clearly then it is very difficult to implement the system and the system goes in the wrong way. So it is very important that everyone must understand their role and responsibilities so they can manage the process easily and efficiently.

## 2.5

When we talk about the factors that would be significant for the requirement engineering process, there comes many techniques in our mind that are significant for requirement gathering and engineering process. **Below are some techniques:**

**This includes various activities like elicitation, verification, validation, specification.**

### **Elicitation:**

It is one of the ways of gathering information or requirements from stakeholders. It is involved in gaining information about the project that the user wants. There are many techniques for elicitation, conducting interviews, brainstorming, Ethnography, prototyping. These all information helps in building the software according to customer needs.

### **Verification and validation:**

Requirement verification is the first part, it involves checking the code, design, documents and ensures that software is correctly built according to requirements. Verification process involves checking the requirements at the time of development phase. It checks all the requirements thoroughly and includes walkthroughs and inspections.

Requirement verification is the last part after the verification process, it confirms that after verification the system meets the customer requirements, works after verification or not. It involves many testing phases that are unit testing, integration testing. Validation process focuses on the actual product. We can say that it is white box testing.

### **Requirement Specification:**

This is considered the main task of the requirement engineering process. All the requirements should be specified in this process. This process lists down all functional as well as non-functional requirements. This includes data flow diagrams, data dictionaries. After that SRS (software requirement Specification) document produces all the specification requirements.

