

# Business Requirement Document [External Design]

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ASSOCIATED ENGINEERING



**Version:**

1.0

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## Changelog:

01-31-2020, v0.1

Documenting the first implementation of the Business Requirement Document.

04-07-2020, v1.0

Documenting the final implementation of the Business Requirement Document.

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## Business Requirements

The purpose of this project is to provide an efficient solution for proper resource and project management within the firm. The ideal objective would be to replace the current system used by AE with a version of this project, which would be more optimized, easily modifiable and readily integrable into their live resource management environment.

In this document we have laid down our design goals and their impact. We have also provided a very High-Level Design diagram for a view of the system-flow.

1. The Project Description section will go over the summary of the project and how we are going to proceed from here.
2. The Impact Analysis section will showcase the impact of our design goals.
3. The Functional Requirements section will cover the requirements of a working system running the project. This also includes a Requirement Traceability Matrix and Use-Case Diagram.
4. The Non-Functional Requirements section shall provide additional economic, resource and business requirements that maybe incurred with the adoption of this project.

## Project Description

We are given to design a resource/project management system for a consulting firm. The project is supposed to have 4 main modules:

- User/Project

- Search
- Forecasting
- Administration

Keeping in mind that we need to achieve a successful integration of all four of the aforementioned modules, we have come up with a design that should be able to do so. We will go over the details of the design and its impact in the later sections.

The end system should work like this:

- User/Project
  - Users (Consultants, Resource Managers, Project Managers) should be able to log-in, register, and be authenticated.
  - Consultants should be able to view their profile, and other users' profiles, but they cannot edit them.
  - Resource Managers can move/assign users. They can effectively edit details.
  - Project Managers can create Projects and assign users. They can effectively edit details.
- Search
  - Both users and projects be searchable.
  - Effective filters will be used for better search results.
- Forecasting
  - User availability, among other statistics will be shown for proper utilization of resources to the Resource/Project Managers.
  - Basic utilization statistics of resources will be shown to the Resource/Project Manager.
  - Resource/Project Managers can edit total utilization for and each users utilization for the project.
- Administration
  - A different UI will be provided for the admins so that they have a proper control of the system.
  - On top of the Azure AD authentication, Administration requires additional authentication to access the administration page.
  - They are also given control of creation and deletion of user, location, skill, discipline, and organization.
  - They can also edit their profile, such as password.

As for strategy: our team has been divided into smaller groups of people, each handling different tasks. For better utilization of our own resources, we will be parallelizing the whole development process. The modules and stages within the cycle will also be heavily tested.

## Impact Analysis

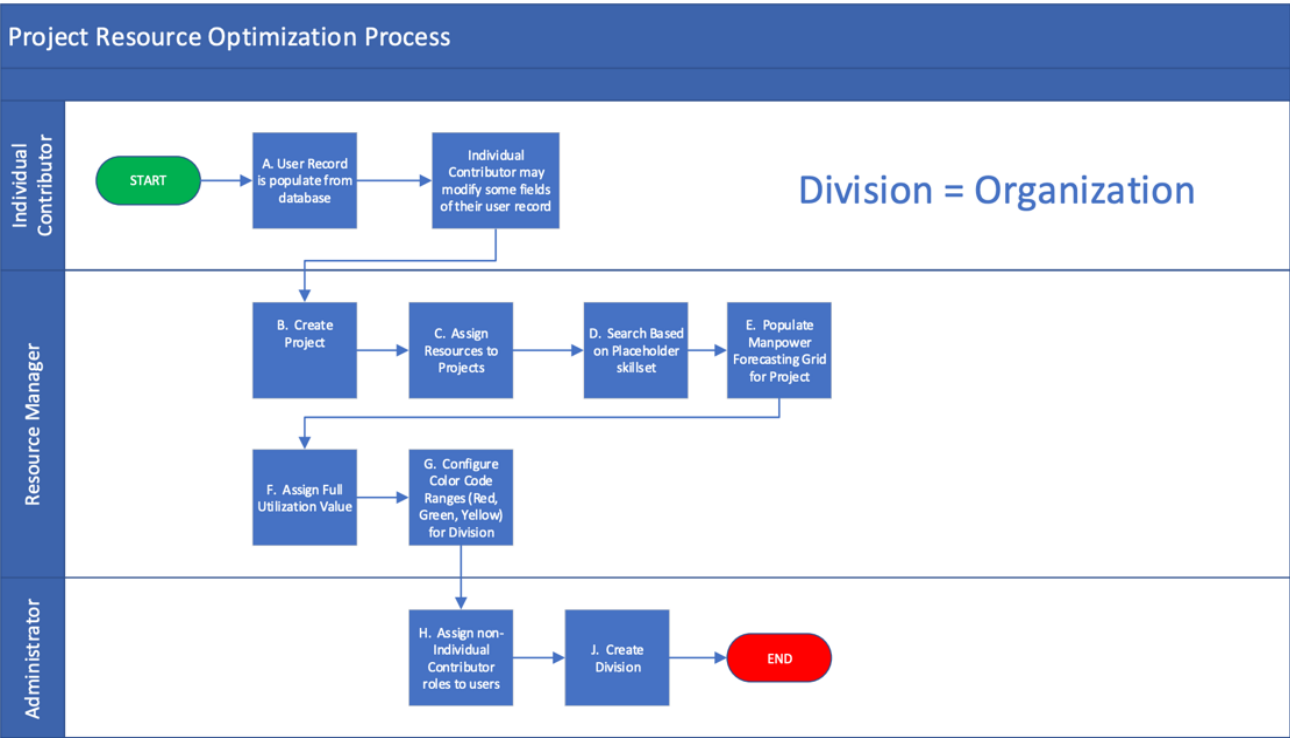
- A successful project solution for AE will be adopted to AE project management System. Therefore, the application needs to access the data from project management database.
- A successful project solution for AE will enable to update/create user or project using automated system. Therefore, all AE employees may need to get a session to know how to use the application.
- A successful project solution for AE will provide forecasting module that visualizes all resources availability. Some of user will have problem to read the visualizes data at first.

## Functional Requirements

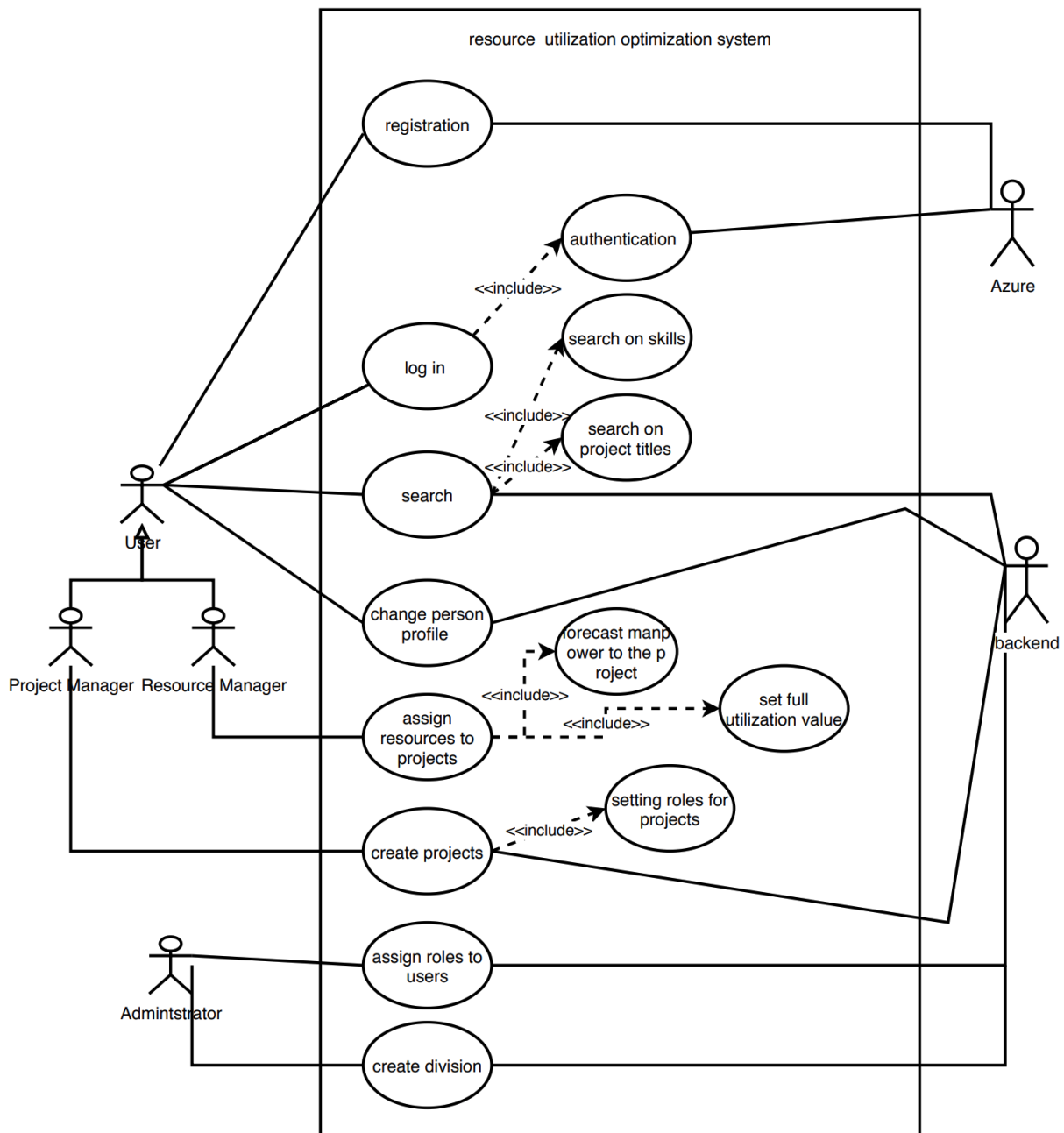
### Requirements Traceability Matrix (RTM)

RQ No	Reference	description	type	Priorit y	MVP(Y/ N)	Related Test Case	Test Status	Comments
1.0	Use-case1	Update/create user or project within user/project module.	Functional	1	Y	Admin Page Create User/ project Module Create a Project	Success	
1.1	Use-case2	Search specific skilled staff within the search module	Functional	1	Y	Project Module adding user in search module	success	
1.2	Use-case3	Project manager can assign workload to the individuals that are assigned to a project	Functional	1	Y	Project Module adding users	success	
1.3	Use-case4	Resource manage can review the current workload so that RM can determine whether the resources are overutilization or underutilization.	Functional	1	Y	Forecastin g Module	success	
1.4	Use-case5	Administrator can assign a position of user and create division	Functional	1	Y	Admin page create a user	success	
2.0	N/A	Support UI on IE11	Non-Functional	1	Y	N/A	Success	
2.1	N/A	Support UI on google Chrome	Non-Functional	1	Y	N/A	success	
<b>TB D</b>								

Business Flow Diagram (Given)



## Use Case Diagram



## Non-Functional Requirements

- Backup Needs
  - All deliverable codes will be stored in Gitlab. However, database for this project will not be stored in GitLab. A solution for this issue will possibly be addressed by using automatic cloud backup of the database.
- Security Needs
  - In this project, authentication will be performed through Azure Active Directory. Therefore, most of authentication issues will be handled by Azure. However, if AD's account name and password are exposed to third party, then it might cause sever issues on the application.
  - For data security, we will have the data stored on multiple local systems, and it will be backed up in a cloud solution.
- Capacity Needs
  - In this project, we assume that 1000 resources and 24 months of forward-looking availability is always kept in the system. And all data from database would be available permanently unless it is manually removed by the administrator.
- Cost Parameters/Constraints
  - TBD

## Appendix

### Glossary of Terms/ Abbreviations

<u>Terms/Abbreviations</u>	<u>Description</u>
<u>N/A</u>	

### Referenced Documents

<b>Title</b>	<b>Purpose</b>	<b>Version</b>
<b>Associated Engineering Final</b>	Referencing	N/A
<b>Blue print provided by AE</b>	Referencing	N/A
<b>Terms of Reference</b>	Referencing	1.0