

ANGULAR-RESOURCE MANAGER

IIHT

Time To Complete: 10 to 12 hr

1. Business-Requirement:

1.1 Problem Statement:

Create a single page application in Angular for Resource Management.

Functionalities available for Resource Manager (RM):

1.1.1 Allocate IT Resources

Through this portal RM will be able to allocate IT resources like Laptop, Desktop, VMs etc. to employees in the company.

1. Allocate IT Resource to Employee
2. List of All Allocations

1.1.2 Resource Inventory (Item Management)

Using this portal RM is able to store the list of all the resources provided by the company. So that this information is always readily available for budgeting.

1. Add New Items in the Resource Inventory
2. List all the available Resource Inventory

1.1.3 Track IT Projects

Using this portal RM is able to view the list of all the Projects available in the company. Using this Project list RM can assign the Project to the Employee.

1. List all existing Projects
2. Add new Project

1.1.4 Employee Management

Using this portal RM is able to View the list of all the Employees working in the organization. Using this Employees list RM can assign the Project and Resource to Employee.

1. List all Employees
2. Add New Employee

UI Technologies - Angular 11, Bootstrap, Typescript, HTML5, CSS3, Jasmine, Jest

2. UI Components

2.1 Dashboard Page Component:

1. This page will display Header and Left Navigation Menu using which RM can navigate through the pages.
2. Navigation menu consists of “All Allocations”, “Items”, “Projects” and “Users” buttons.

Resource Manager

Dashboard

All Allocations

Items

Projects

Users

2.2 All Allocation Component:

1. While clicking on the “All Allocations” button RM will navigate to the Allocation page.
2. Page consists of two buttons as “New Allocation” and “Export”.
3. Also, Page displays a table which shows “All Allocations” data available in organization.
4. Available columns are – “Allocation ID”, “Allocated To”, “Item”, “Project”, “Allocation Date”, “PO No”, “PO Amount”, “Life Time”.

[New Allocation](#) [Export](#)

All Allocations

Allocation ID	Allocated To	Item	Project	Allocation Date	PO No	PO Amt	Life Time
1	Ashok Kumar	Mobile - Samsung	EComm	3-October-2019	8927299	345	3-October-2019 to 3-October-2021
2	Anil Kapoor	Laptop - Dell	Spectrum	9-January-2019	4567891	479	9-January-2019 to 9-January-2022
3	Mohan Singh	Laptop - Dell	EComm	10-February-2019	1234567	456	10-February-2019 to 10-February-2022
4	Abhay Kumar	Laptop - Dell	Tech Support	15-March-2020	2345671	453	15-March-2020 to 15-March-2023
5	Hemal Das	Laptop RAM Upgrade	S&D Group	20-June-2019	2323451	123	20-July-2019 to 20-June-2022

2.3 Add Allocation Component:

1. Using the “New Allocation” button RM will be able to add new allocation data.
2. Click on “New Allocation” and it will redirect to “Add Allocation” Page.
3. All fields are mandatory in the form.
4. Provided two buttons as “Submit” and “Cancel” on the Page.
5. Add button is used to Add the new allocation. Cancel button will redirect to the Allocation page.

Add Allocation

Allocated To:

Item:

Description:

Project:

Allocation Date:

PO Number:

PO Amount:

Start Date:

End Date:

Cancel

Submit

2.4 Manage Item Component:

1. Using the “Items” navigation button RM will be able to view list of items data.
2. Page will display two buttons (“Add Item” and “Export”) and an Item table.
3. Table will display all the Items available in the organization.
4. Provided a Delete column to delete the existing item.
5. Available columns are – “Name”, “Item description”, “Item Type”, “Cost(\$)", “Remove”

New Item Export

Manage Item

Name	Item Description	Item Type	Cost (\$)	Remove
Mobile - Samsung	4 GB RAM, Smart	Hardware	345	Delete
Laptop - Dell	i5 Processor, 8 GB RAM, 256 GB HDD	Hardware	456	Delete
Laptop RAM Upgrade	4 GB RAM	Hardware	123	Delete
Laptop - Dell	i7 Processor, 16 GB RAM, 256 GB HDD	Hardware	453	Delete
Amazon Web Services	Cloud based server	Software	123	Delete
MS Office	MS Office 10, Licenses Version	Software	50	Delete

2.5 New Item Component:

1. Using the “New Item” button RM will be able to add new item data.
2. Click on “New Item” and it will redirect to the New Item page.
3. All fields are mandatory in the form.
4. Provided two buttons as “Submit” and “Cancel” on the Page.
5. Add button is used to Add the new item. Cancel button will redirect to the Items page.

Add Item

Name:

Type:

Description:

Cost:

Cancel

Submit

2.6 Manage Project Component:

1. Using the “Projects” navigation button RM will be able to view the list of Projects.
2. Page will display two buttons (“Add Project” and “Export”) and Project table.
3. Table will display all the Projects available in the organization.
4. Provided Delete column to delete the existing Project.
5. Available columns are – “Name”, “Description”, “Remove”

[New Project](#) [Export](#)

Manage Project

Name	Description	Remove
Data Directory	LI Data	Delete
EComm	Ecommerce project used for buy any products related to cosmetic, apparels and household things	Delete
Spectrum	Spectrum - Helps to hire and manage employees	Delete
Tech Support	Technical support to US based Organization which helps them to manage business	Delete
Shipping	Shipping bases business project	Delete

2.7 New Project Component:

1. Using the “New Project” button RM will be able to add new Project data.
2. Click on “New Project” and it will redirect to the New Project page.
3. All fields are mandatory in the form.
4. Provided two buttons as “Submit” and “Cancel” on the Page.
5. Add button is used to Add the new Project. Cancel button will redirect to the Projects page.

Add Project

Name:

Description:

Start Date:

Cancel

Submit

2.8 Manage Users Component:

1. Using the “Users” navigation button RM will be able to view the list of Employees in the Org.
2. Page will display two buttons (“Add User” and “Export”) and Users table.
3. Table will display all the Employees working in the organization.
4. Provided a Delete column to delete the existing Employee record.
5. Available columns are “ID”, “Name”, “Email”, “Mobile”, “Project”, “Birth Date”, “Assigned Date” and “Remove”

New userExport

Manage Employee

Employee ID	Employee Name	Email	Mobile	Project	Birth Date	Assigned Date	Remove
1	Ashok Kumar	ashok.kumar@gmail.com	9867153742	EComm	11-July-1988	2-October-2019	Delete
2	Anil Kapoor	anil.kapoor@gmail.com	9773276789	Spectrum	10-October-1987	20-May-2019	Delete
3	Mohan Singh	mohan.singh@gmail.com	9776542345	EComm	5-April-1992	23-June-2019	Delete

2.9 New User Component:

1. Using the “New User” button RM will be able to add a new Employee.
2. Click on “New User” and it will redirect to the New Users page.
3. All fields are mandatory in the form.
4. Provided two buttons as “Submit” and “Cancel” on the Page.
5. Add button is used to Add the new Employee. Cancel button will redirect to the Users page.

Add User

Name:

Email:

Mobile:

Project:

Birth Date:

Joining Date:

Cancel

Submit

3. Important Instructions

1. All actions like build, compile, running application, running test cases will be through Command Terminal.
2. To open the command terminal the test takers, need to go to Application menu (Three horizontal lines at left top) -> Terminal -> New Terminal.
3. This editor Auto Saves the code.
4. If you want to exit(logout) and continue the coding later anytime (using Save & Exit option on Assessment Landing Page) then you need to use CTRL+Shift+B-command compulsorily on code IDE. This will push or save the updated contents in the internal git/repository. Else the code will not be available in the next login.
5. These are time bound assessments the timer would stop if you logout and while logging in back using the same credentials the timer would resume from the same time it was stopped from the previous logout.
6. To test any Restful application, the last option on the left panel of IDE, you can find ThunderClient, which is the lightweight equivalent of POSTMAN.
7. This is a web-based application, to run the application on a browser, use the internal browser in the workspace. Click on the second last option on the left panel of IDE, you can find Browser Preview, where you can launch the application.

Note: The application will not run in the local browser

8. You can follow series of command to setup Angular environment once you are in your project-name folder:
 - a. npm install -> Will install all dependencies -> takes 10 to 15 min
 - b. npm run start -> To compile and deploy the project in browser. You can press <Ctrl> key while clicking on localhost:4200 to open project in browser -> takes 2 to 3 min
 - c. npm run json-server -> to deploy fake rest api created with json-server -> takes 10 to 15 seconds
 - d. npm run jest -> to run all test cases. **It is mandatory to run this command before submission of workspace -> takes 5 to 6 min**

9. You may also run “npm run jest” while developing the solution to re-factor the code to pass the test-cases.
10. Once you are done with development and ready with submission, you may navigate to the previous tab and submit the workspace. It is mandatory to click on **“Submit Assessment”** after you are done with code.
11. You need to use CTRL+Shift+B - command compulsorily on code IDE, before final submission as well. This will push or save the updated contents in the internal git/repository, and will be used to evaluate the code quality.