

# Road Repair and Tracking System

Submitted by :

Name : Naveen Kumar Khuntay

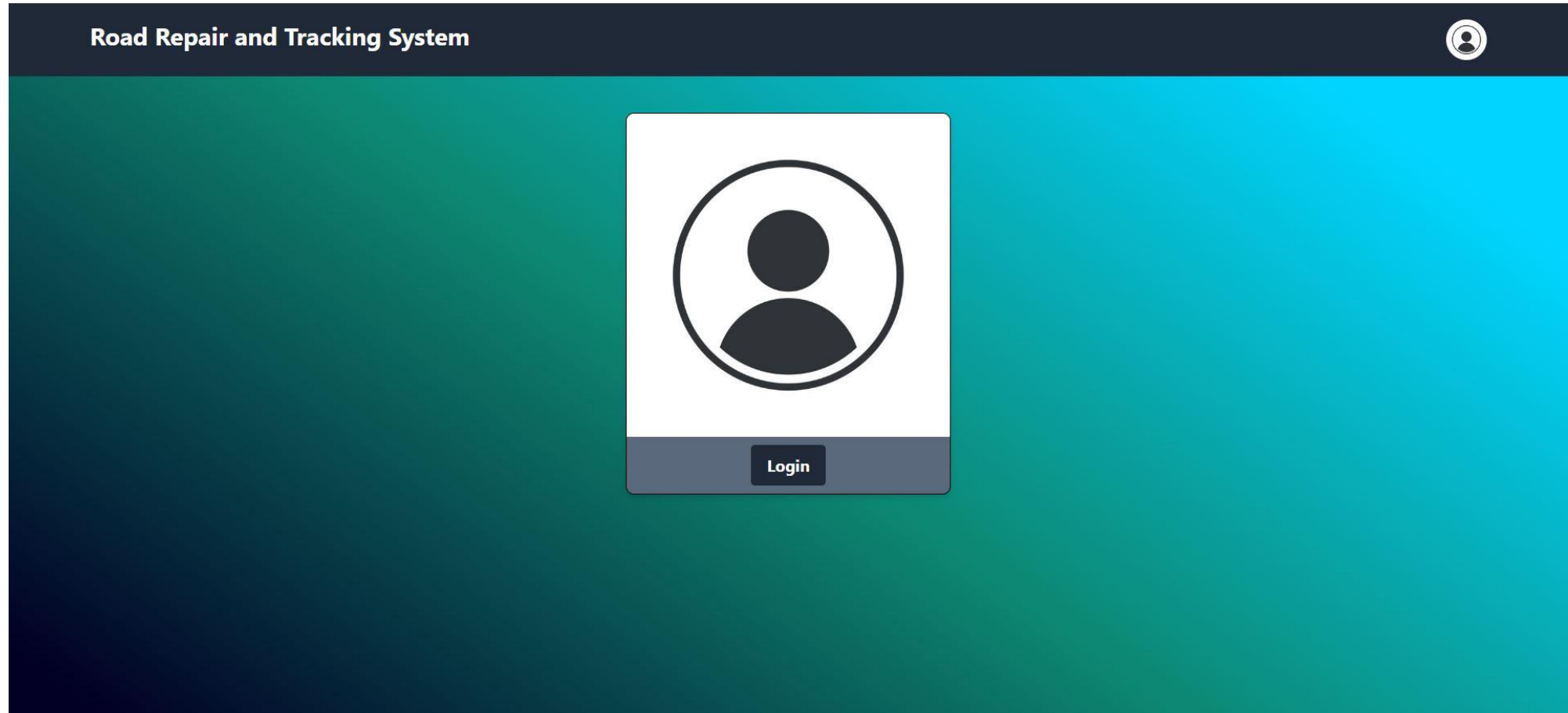
Roll NO : 121CS0176

Submitted to :

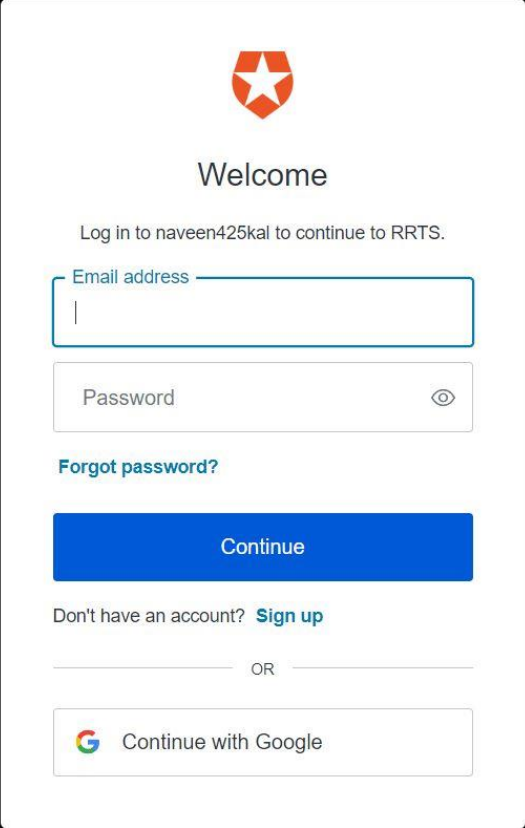
DR. Judhistir Mohapatro, Professor

Software Engineering Lab - CS3074

# Home page with login



# When login is clicked



The image shows a login form centered on a black background. At the top of the form is a red shield icon with a white star. Below the icon is the word "Welcome" in a large, black, sans-serif font. Underneath "Welcome" is the text "Log in to naveen425kal to continue to RRTS." in a smaller, black, sans-serif font. The form contains two input fields: "Email address" and "Password". The "Email address" field is a blue-outlined rectangle with a vertical cursor inside. The "Password" field is a white rectangle with a grey border and a grey eye icon on the right side. Below the "Password" field is a link "Forgot password?" in blue text. A blue button with the word "Continue" in white text is positioned below the "Forgot password?" link. Below the button is the text "Don't have an account? Sign up" in black text, where "Sign up" is a blue link. A horizontal line with the word "OR" in the center separates the "Sign up" link from the "Continue with Google" button. The "Continue with Google" button is a white rectangle with a grey border, featuring the Google logo (a small "G" with four colors) and the text "Continue with Google" in black. At the bottom center of the black background, there is a small, faint grey shield icon with a star.

Welcome

Log in to naveen425kal to continue to RRTS.

Email address


Password

[Forgot password?](#)

Continue

Don't have an account? [Sign up](#)

OR

 Continue with Google

# Users

- The software have four users
  - Residents
  - Supervisor
  - Administrator
  - Mayor
- After login they will access their page accordingly.



Register Complaint



Supervisor Login



Admin Login

Home page that shows different links for different users

# Residents or Clerk

The residents can only register complaint.



**Location**

**Type**

**Comment**

**Submit**

Residents can register complaint, or they can register through call and clerk will login and register the complaint

# Supervisor

The supervisor have three functionality

1. Check Resources : can see the details about the available labours and materials.
2. Allocate Resource : can allocate resource to specific complaint based on availability.
3. Priority List : based on allocated resources and severity type of road priority list is created.





Check Resource

Allocate Resource

Priority List

Labour List

Name	Expertise	Phone Number
ABC	Road Repair expert	9734567891
XYZ	Road Repair expert	9134563591
PQR	Road Repair expert	8745936548
CVT	Road Repair expert	8745936548
RTY	Road Repair expert	8745936548
NPM	Road Repair expert	7878452178
KPL	Road Repair expert	9756487615

Material List

Name	Quantity
Axe	450
Brush Hook	450
Shovel	450
Spade	450
Fork	450
Hoe	450
Pickaxe	450
Crowbar	450
Hammer	450

Supervisor can check resources


[Check Resource](#)[Allocate Resource](#)[Priority List](#)

### Complaint Details

Sl. NO	ComplaintID	Location	TYPE	NAME
1	6614f982ef08f379ec1c1d74	Gulmohar Street	Deserted area	naveen
2	66150fd8cfcc59070933e96a	Biju Patnaik Library	Busy Area	naveen
3	661aef1ff7ab6a0831b5d3bd	Rourkela	Commercial Area	abc@gm

Supervisor can click on the complaint list to allocated resource

# Road Repair and Tracking System

[Home](#) [RegisterComplaint](#) 

Complaint ID

6614f982ef08f379ec1c1d74

Allocate Labour

Select Labour

Allocate Material

Select Material

0

Submit

Supervisor when clicked on the complaint with Id(6614f982ef08f379ec1c1d74) to allocated resources



Check Resource

Allocate Resource

Priority List

Priority List

Sl. NO	ComplaintID	labour Assigned	Resource Allocated	Status
1	6614f982ef08f379ec1c1d74	RTY	Axe,Hook,Shovel,Spade	Pending
2	661968546e3d9a111a7a049c	CVT	Axe,Hook,Shovel,Spade	Pending

The priority List generated by Supervisor by allocating resources.

# Administrator

The Administrator have five functionality

1. Check Resources : can see the details about the available labours and materials.
2. Update Resources : can add new materials and labours.
3. Repair Schedule : Based on priority list the repair schedule is generated and administrator can change the status of work i.e., done or pending.
4. Repair work : can see the status of repair works that are completed.
5. Statistics : the statistics is generated according to the repair schedule that are still pending or completed and what resources were used, and which labour was assigned.

[Check Resource](#)[Update Resource](#)[Repair Schedule](#)[Repair Work](#)[Statistics](#)

## Labour List

Name	Expertise	Phone Number
ABC	Road Repair expert	9734567891
XYZ	Road Repair expert	9134563591
PQR	Road Repair expert	8745936548
CVT	Road Repair expert	8745936548
RTY	Road Repair expert	8745936548
NPM	Road Repair expert	7878452178
KPL	Road Repair expert	9756487615

## Material List

Name	Quantity
Axe	450
Brush Hook	450
Shovel	450
Spade	450
Fork	450
Hoe	450
Pickaxe	450
Crowbar	450
Hammer	450

Administrator can check the resources

[Check Resource](#)[Update Resource](#)[Repair Schedule](#)[Repair Work](#)[Statistics](#)

## Add Labour

Name

Expertise

Phone

Account No

## Add Material



Name

Quantity

Administrator can add new materials or labour.

[Check Resource](#)[Update Resource](#)[Repair Schedule](#)[Repair Work](#)[Statistics](#)

## Repair Schedule

Sl. NO	ComplaintID	labour Assigned	Resource Allocated	Status
1	6614f982ef08f379ec1c1d74	RTY	Axe,Hook,Shovel	Pending 
2	661968546e3d9a111a7a049c	CVT	Axe,Hook,Shovel	Pending 

Administrator can change the status of repair work



- Check Resource
- Update Resource
- Repair Schedule
- Repair Work
- Statistics

Completed Works

Sl. NO	ComplaintID	labour Assigned	Resource Allocated	Status
1	6614f982ef08f379ec1c1d74	XYZ	Axe,Hook,Shovel	Done
2	6614fae4ef08f379ec1c1d86	PQR	Axe,Hook,Shovel	Done
3	66150cdccfcc59070933e95b	RTY	Axe,Hook,Shovel	Done

Road repair works that are completed



Check Resource

Update Resource

Repair Schedule

Repair Work

Statistics

## Statistics

Sl. NO	ComplaintID	labour Assigned	Resource Allocated	Status
1	6614f982ef08f379ec1c1d74	XYZ	Axe,Hook,Shovel	Completed
2	6614f982ef08f379ec1c1d74	RTY	Axe,Hook,Shovel	Pending
3	6614fae4ef08f379ec1c1d86	PQR	Axe,Hook,Shovel	Completed
4	66150cdccfcc59070933e95b	RTY	Axe,Hook,Shovel	Completed
5	661968546e3d9a111a7a049c	CVT	Axe,Hook,Shovel	Pending

Administrator can see the statistics.

# Mayor

The Mayor can request the statistics.


The administrator will show the statistics to the mayor.


# Database and backend

Database used is mongodb which is nosql database

Backend have 5 routes to get the data

1. User (/user)
2. Complaint (/complaint)
3. Labour (/resources/labour)
4. Materials (/resources/material)
5. List (/list)

Atlas

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Data Services


App ServicesCharts

Search namespaces

STORAGE SIZE: 30KBLOGICAL DATA SIZE: 497BTOTAL DOCUMENTS: 3INDEXES TOTAL SIZE: 30KB

FindIndexesSchema Anti-Patterns 0AggregationSearch Indexes

INSERT DOCUMENT

Filter 

Type a query: { field: 'value' }

ResetApplyOptions ▾

\_id: ObjectId('6614f982ef08f379ec1c1d74')

location: "Gulmohar Street"

type: "Deserted area"

email: "naveenkhuntek@gmail.com"

comment: "Road on the crossroad"

\_\_v: 0

\_id: ObjectId('66150fd8cfcc59070933e96a')

location: "Biju Patnaik Library"

type: "Busy Area"

email: "naveenkhuntek@gmail.com"

comment: "In front of Arun tea stall"

\_\_v: 0

System Status: All Good

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Search Indexes

INSERT DOCUMENT

Filter

Type a query: { field: 'value' }

Reset

Apply

Options ▾

\_id: ObjectId('6614d060607c2791eceb6562')

name : "Naveen"

email : "naveenkhuntek@gmail.com"

isSupervisor : true

isAdmin : true

\_id: ObjectId('661cc435ef48ef5059e96f58')

name : "Nayan"

email : "nayanMohanty@gmail.com"

isSupervisor : true

isAdmin : false

System Status: All Good

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Find

Indexes

Schema Anti-Patterns 0

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Search Indexes

INSERT DOCUMENT

Filter

Type a query: { field: 'value' }

Reset

Apply

Options

```
{
  "_id": ObjectId('66183df77950dca2bf57e262'),
  "name": "XYZ",
  "expertise": "Road Repair expert",
  "phone": 9134563591,
  "accountno": 456789561234,
  "isAssigned": false
}
```

```
{
  "_id": ObjectId('66183e247950dca2bf57e263'),
  "name": "PQR",
  "expertise": "Road Repair expert",
  "phone": 8745936548,
  "accountno": 894536251478,
  "isAssigned": true
}
```

System Status: All Good

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STORAGE SIZE: 30KBLOGICAL DATA SIZE: 474BTOTAL DOCUMENTS: 7INDEXES TOTAL SIZE: 30KB

FindIndexesSchema Anti-Patterns 0AggregationSearch Indexes

INSERT DOCUMENT

FilterType a query: { field: 'value' }ResetApplyOptions

\_id: ObjectId('661839467950dca2bf57e256')

name: "Axe"

quantity: 450

\_id: ObjectId('661839b97950dca2bf57e257')

name: "Brush Hook"

quantity: 450

\_id: ObjectId('661839da7950dca2bf57e258')

name: "Shovel"

quantity: 450

System Status: All Good

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materials collection



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STORAGE SIZE: 30KBLOGICAL DATA SIZE: 700BTOTAL DOCUMENTS: 0INDEXES TOTAL SIZE: 30KB

FindIndexesSchema Anti-Patterns0AggregationSearch Indexes

INSERT DOCUMENT

FilterType a query: { field: 'value' }ResetApplyOptions

\_id: ObjectId('6618e2a7a41c8f81f1f17102')

id: "66150cdccfcc59070933e95b"

labourID: "66183efc7950dca2bf57e265"

materials: "Axe,Hook,Shovel,Spade,Fork,Hoe,Pickaxe,Hammer"

quantity: 100

isCompleted: true

\_\_v: 0

\_id: ObjectId('6619687b6e3d9a111a7a04aa')

id: "661968546e3d9a111a7a049c"

labourID: "66183edf7950dca2bf57e264"

materials: "Axe,Hook,Shovel,Spade,Fork,Hoe,Pickaxe,Hammer"

quantity: 50

isCompleted: false

System Status: All Good

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Priority and Repair schedule list collection

Code link :- <https://github.com/naveen-khuntay/Road-Repair-and-Tracking-System>

Hosted website :- <https://swe-project-tawny.vercel.app/>

backend link :- <https://swe-project-2lyq.onrender.com/>