A
PROJECT REPORT
ON

Freelancing Site

By

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B.Tech CE Semester - V
Subject : Advanced Technologies (CE - 515)

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<u>CERTIFICATE</u>

This is to certify that the practical / term work carried out in subject

Of **Advanced Technologies** (CE - 515) and recorded in this

journal is the Bonafide work of

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Of B.Tech semester **V** in the branch of **Computer Engineering**

During the academic year **2021-22.**

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Contents:

1.Introduction

Freelancing Site is an online website that can be used by Freelancers and Buyers, where buyer can upload the project (task) with required details like description of project, duration days, budget, etc. Freelancer can see different type of project on site and can bid on project relevant to their category. After seeing all the bids on the project, buyer can hire one of the freelancer for their work. After Freelancer submit the work, buyer will have to complete the project from their side, then freelancer will get money.To use any of the functionalities user must have to register / login on site.

The first module is registration as buyer or freelancer. in this module buyer or freelancer can register their self on website by providing all the information. The Second module is Profile. In this module Buyer and Freelancer can see their profile and update it whenever required.

Modules Specific to buyer :- 1) Post Project – In this module buyer upload project with required details. 2) My Project – In this module buyer can see their uploaded project & manage it like seeing bids by freelancers, delete project, hire any freelancer, status etc.

Modules Specific to freelancer :- 1) Find Jobs – In this module freelancer can see all the uploaded project by buyers which are relevant to their category and bid on them. 2) My Project – In this module freelancer can see all their active or completed projects.

➢ **Tools/Technologies Used**

❖ **Technologies:**
- HTML
- CSS
- Bootstrap
- Javascript
- Typescript
- Angular
- Node Js
- Express Js
- MongoDB

❖ **Tools**
- Git
- Visual Studio Code

❖ **Platform**
- Local development server

2.Software Requirement Specifications

Users of the System :-

- Buyer
- Freelancer

Functional requirements :-

1. Login / Registration

R.1.1: Create New Account
Description :- If user does not have an account on website then he/she has to create an Account.
Input:- Enter details like name, email id, password, type of account (i.e. buyer or freelancer) etc... to create an account.
Output:- Redirected to Login

R.1.2: Login
Description :- User can access this website by login using email id and password.
Input:- Enter email id and password.
Output:- If email id and password are correct then all functionalities will be display, otherwise message will be display as "Invalid email id or password".

To Use Any Of the below module & functionalities user must require login.

2. Profile

R.2.1: See Profile
Description :- User can see their Profile Details like name, description, category, education, certification, profile image and update it.

R.2.1.1: Upload Profile Picture
Input:- User have to select profile picture from their computer.
Output:- Uploaded image will be display as profile picture.

R.2.1.2: Modify Personal Details
Input:- User can select and modify details.
Output:- Details will be modified.

Modules Specific To Buyers

1. Buyer's Project

R.1.1: Post Project
Description:- Buyer can post a project to hire freelancer.
Input:- Buyer have to enter all the required details like name, description, category, budget & duration of project.
Output:- Project will be uploaded.

R.1.2: Delete Project
Description :- Buyer can select any of their uploaded project and delete it.
Input :- Select Project & Press on delete button.
Output :- Project will be deleted.

2. My Project

R.2.1: See all project
Description :- Buyer can see their all uploaded projects.
Input :- Go to my project section.
Output :- All Uploaded project will be shown.

R.2.2: See all Bids for particular project.
Description :- Buyer can select one of their uploaded projects and see all the bids done by freelancers.
Input :- Select project -> go to proposals.
Output :- All bids will be shown.

R.2.3: Hire Freelancer
Description :- After Seeing all the bids, Buyer can select one of the best bids and hire that freelancer.
Input :- Select Project -> go to proposals -> hire freelancer
Output :- Freelancer will be hired & get hired status from buyer. Remaining bids / proposals will be deleted automatically and no other freelancer can place bid on that project.

Modules Specific To Freelancers.

1. Find Jobs

R.1.1: Find Project
Description :- Freelancer can see all the uploaded projects by buyers relevant to their work category.
Input:- Go to Find Jobs.
Output:- All pending projects relevant to their work category will be displayed.

R.1.2: Place Bid

Description :- Freelancer can select one of the project and place a bid for that project with required details.

Input :- Enter bid details like bid amount, duration days, proposals.

Output :- Bid will be placed for that project.

2. My Project

R.2.1: My Project

Description:- Freelancer can see all their completed and active projects.

Input:- Go to My Projects.

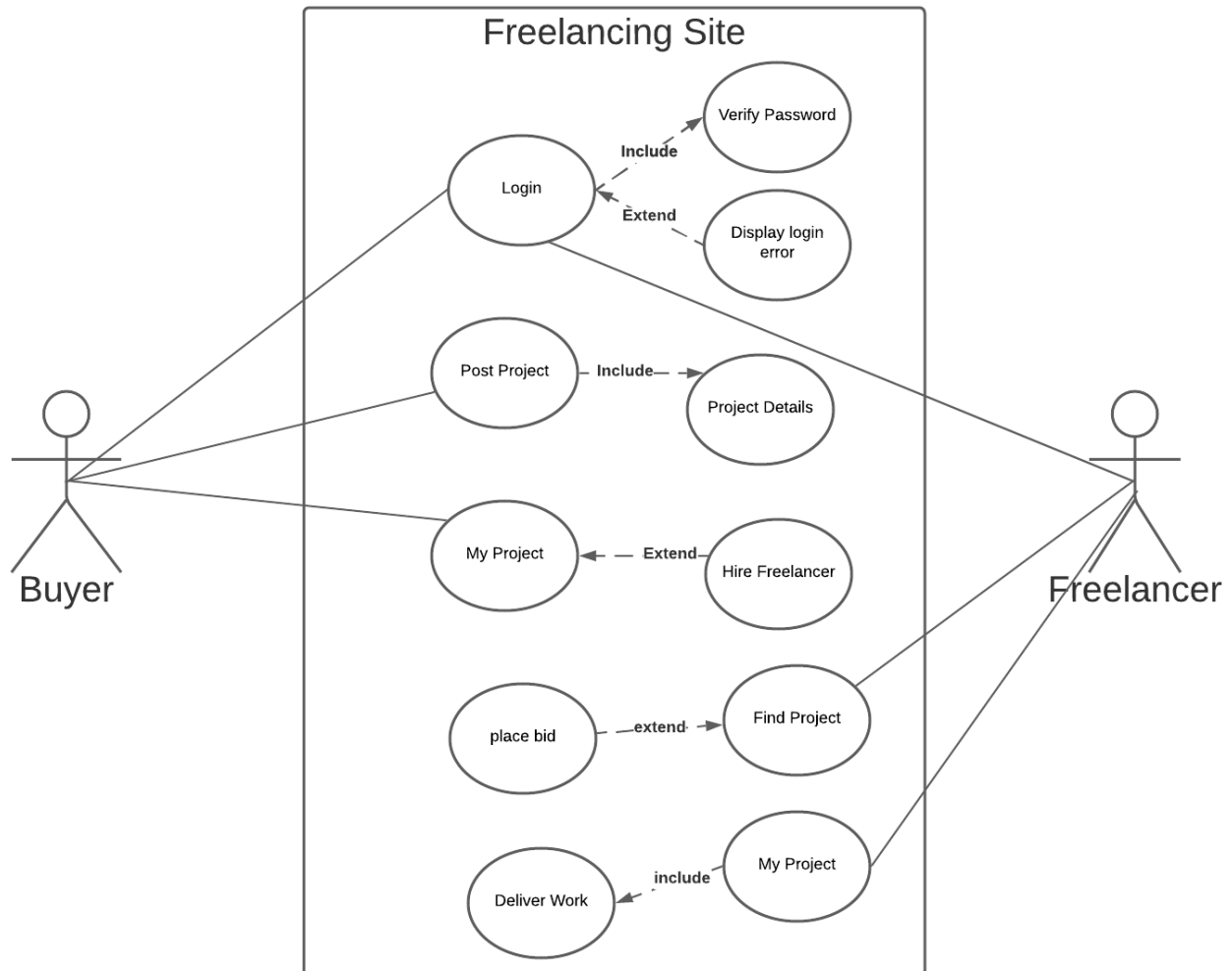**Output:-** List of Projects Will be displayed.

R.2.1: Deliver Work

Description:- Freelancer can go to any active project and attach their work.
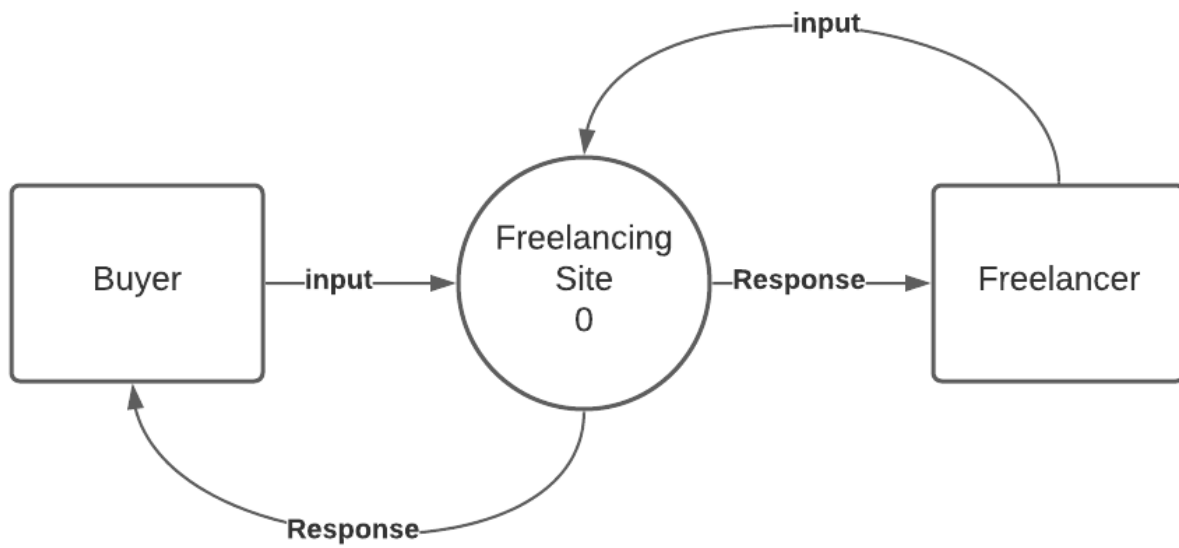
Input:- Attach Work Files.
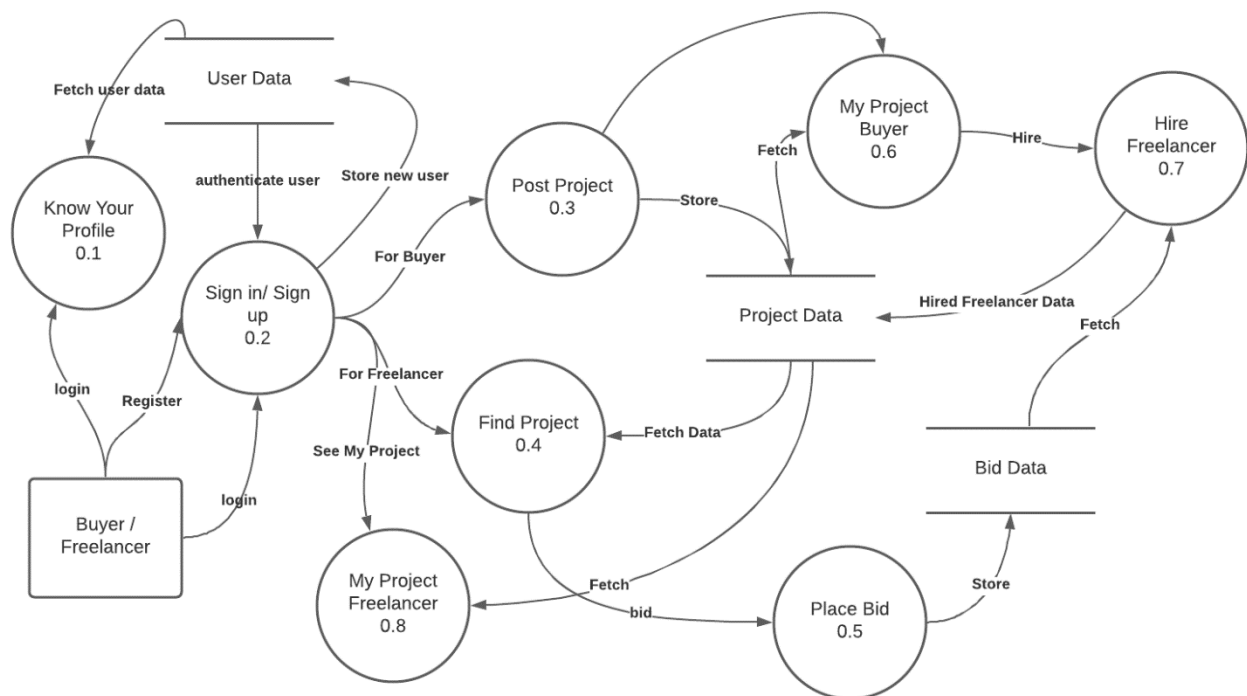
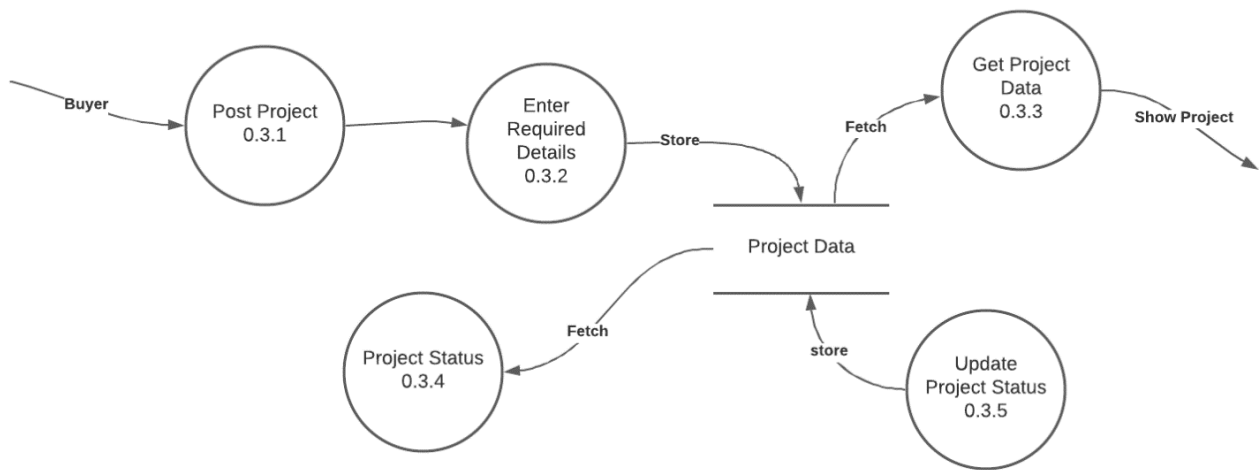**Output:-** File will be uploaded.

3. Design

3.1 Use Case Diagram

3.2   Data Flow Diagram

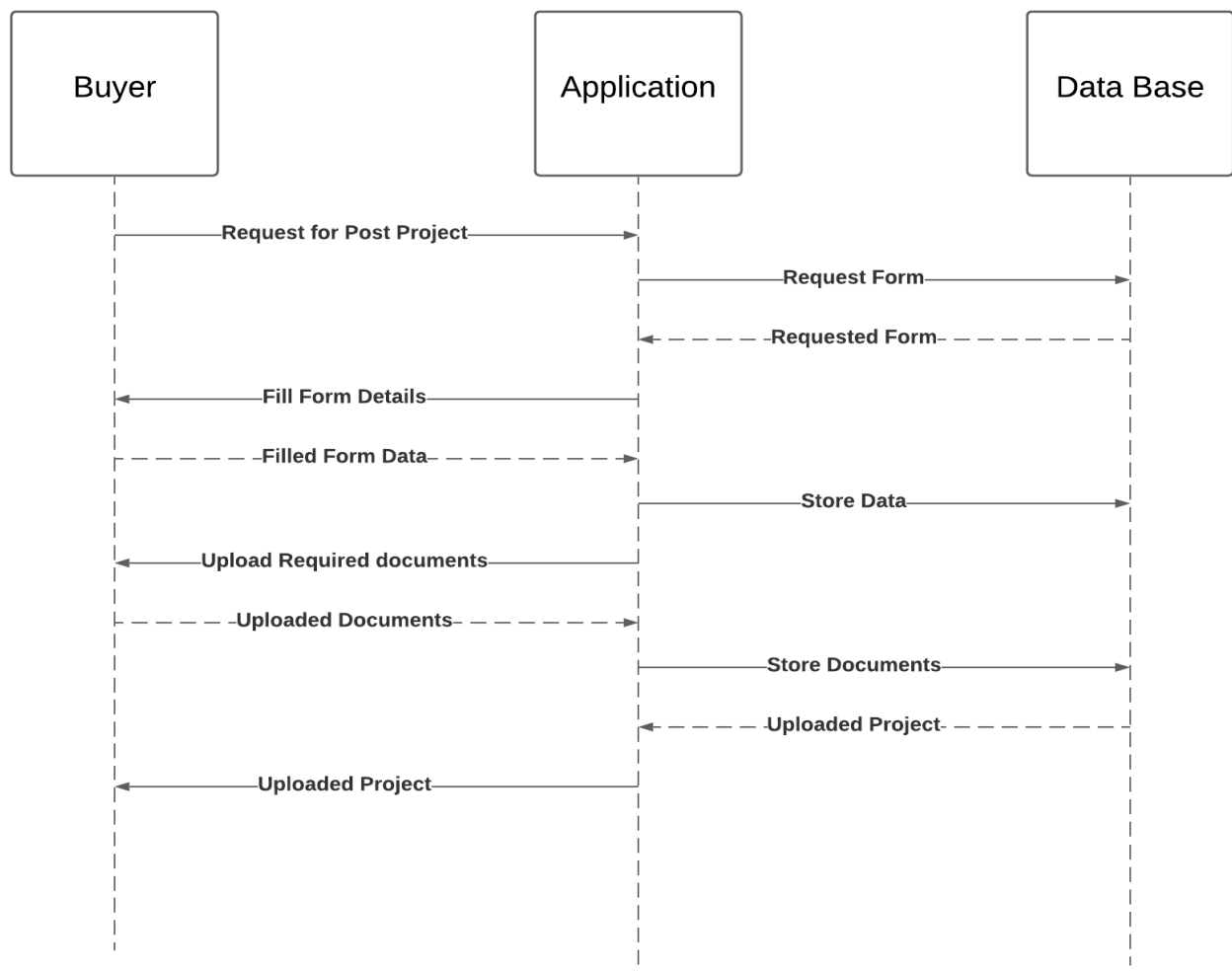**Level 0 - Context Diagram**
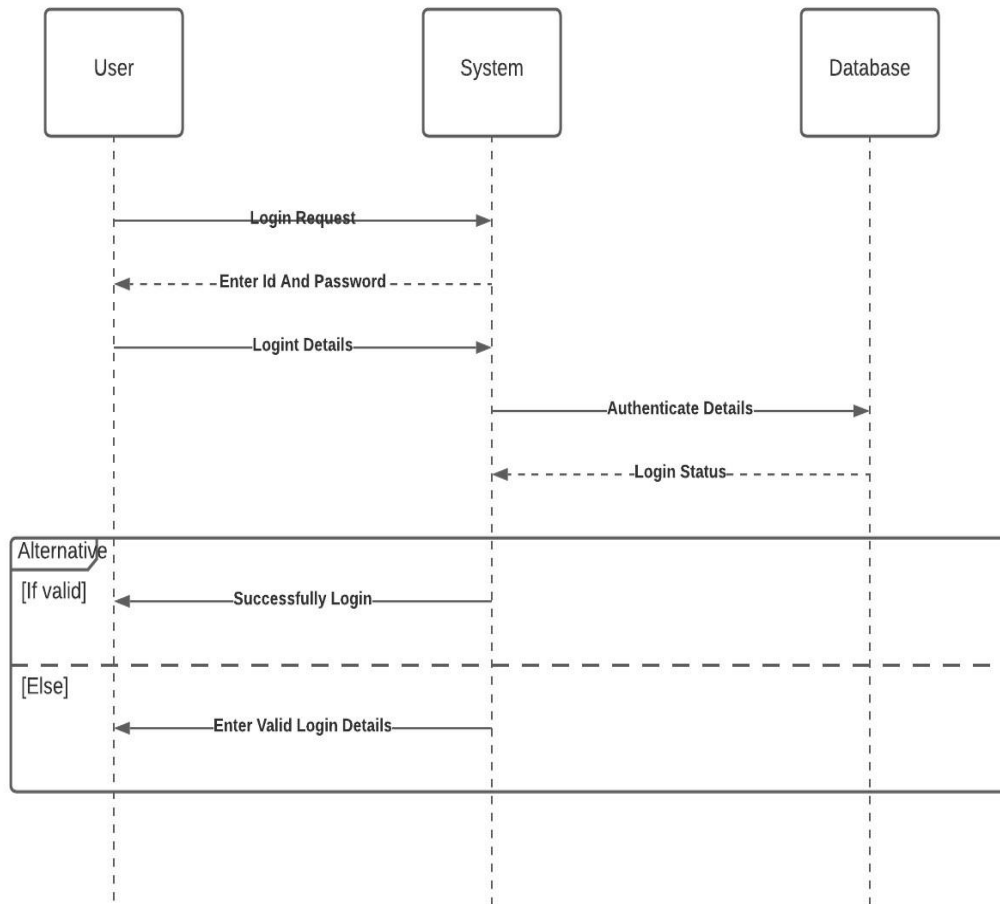

Level 1 Diagram

Level 2 Diagram

3.3   Sequence Diagram (Post A Project)

Login

3.4   Data Dictionary

In our project we have used the NoSQL database so we cannot create a data dictionary as well as entity relationship diagram but we are providing here some pictures of our database. We have used the MongoDb Community Server.

freelancerDb.projects

DOCUMENTS **3**   TOTAL SIZE 1.9KB   AVG. SIZE 646B | INDEXES **1**   TOTAL SIZE 36.0KB   AVG. SIZE 36.0KB

Documents   Aggregations   Schema   Explain Plan   Indexes   Validation

FILTER   { field: 'value' }   ▸ OPTIONS   FIND   RESET   ⟲   ⋯

ADD DATA ▾   ⬆   VIEW   ☰   {}   ▦   Displaying documents **1 - 3** of 3   ‹ ›   ↻ REFRESH

> _id: "51ad6083-c1c7-4e39-97e5-46cbf7e7292d"
> NumberOfBids: 1
> Name: "Web Development"
> Description: "Lorem ipsum dolor sit amet, consectetur adipiscing elit. Quisque sit a..."
> Category: "Development & It"
> MinBudget: 600
> MaxBudget: 1500
> _User: ObjectId("6171386c3e1d362fb8f9dc8a")
> Duration: 3
> ProjectPostTime: 2021-10-21T12:21:20.247+00:00
> Status: "completed"
> __v: 0
> hiredUser: ObjectId("6172947949e3ba0d7084e52d")

> _id: "a79192d7-6d8a-4cff-b0a5-7ad966d4e43b"
> NumberOfBids: 0
> Name: "Data Entry"
> Description: "Nulla facilisi. Nunc eget eros massa. Lorem ipsum dolor sit amet, cons..."
> FilePath: "0ee6223a-0a47-4d0a-b64e-d76031fd60cb_"
> Category: "Admin & Customer Support"
> MinBudget: 700
> MaxBudget: 1200
> _User: ObjectId("6171386c3e1d362fb8f9dc8a")
> Duration: 1.5
> ProjectPostTime: 2021-10-21T13:27:21.155+00:00

freelancerDb.users

DOCUMENTS **3**   TOTAL SIZE 864B   AVG. SIZE 288B | INDEXES **2**   TOTAL SIZE 72.0KB   AVG. SIZE 36.0KB

Documents   Aggregations   Schema   Explain Plan   Indexes   Validation

FILTER   { field: 'value' }   ▸ OPTIONS   FIND   RESET   ⟲   ⋯

ADD DATA ▾   ⬆   VIEW   ☰   {}   ▦   Displaying documents **1 - 3** of 3   ‹ ›   ↻ REFRESH

> _id: ObjectId("6171386c3e1d362fb8f9dc8a")
> Email: "buyer@gmail.com"
> FirstName: "Buyer"
> LastName: "Buyer   "
> Password: "$2a$10$FLtLfdYmtBqvQCTULEQWOOMy/ywSySc8cMqIiLofniHQCuiMv7QHK"
> Role: "buyer"
> profileImg: "a63f9393-48f7-4d36-8044-fc1e6a7ec4fc_login_user.png"
> createdAt: 2021-10-21T09:52:44.794+00:00
> updatedAt: 2021-10-23T09:39:38.802+00:00
> __v: 0

> _id: ObjectId("617150e93e1d362fb8f9dccb")
> Email: "freelancer@gmail.com"
> FirstName: "Freelance"
> LastName: "Services"
> Password: "$2a$10$3LawLPNTTanVMCoDe.TzBuYEM3ofBcB2SJCtgmJ0ckizskXnnpUN6"
> Role: "freelancer"
> profileImg: "avatar.png"
> createdAt: 2021-10-21T11:37:13.139+00:00
> updatedAt: 2021-10-21T11:37:13.139+00:00
> __v: 0

4.Implementation Details

- Post a Project :-

```
onSubmit() {
    this.PostProjectForm.markAllAsTouched();
    if (this.projectName?.valid && this.description?.valid && this.maxBudget?.valid
      && this.minBudget?.valid && this.category?.valid && this.projectFile?.valid &&
this.duration?.valid) {
        this.authService.loggedUser().subscribe(
          (res:any)=>{
            if(res.status=='ok'){
              let date=new Date();
              var project: IProject = {
                _id:uuidv4(),
                Name: this.projectName?.value,
                Description: this.description?.value,
                FilePath: this.uniqueFileName,
                Category: this.category?.value,
                MinBudget: this.minBudget?.value,
                MaxBudget: this.maxBudget?.value,
                _User:res.data._id,
                Duration:this.duration?.value,
                ProjectPostTime:date,
                Status:"pending",
                NumberOfBids:0
              }
          this.projectService.addProject(project).subscribe(
                (res) => {
                  this.router.navigateByUrl('/project');
                },
                (err) => {
                  console.log(err);
                }
              )
            }
          }
        )
    }
  }
```

- File upload in post a project form :-

```
onFileSelected(event: any) {
    const file: File = event.target.files[0];
    if (file) {
      this.uniqueFileName=uuidv4()+"_"+file.name;
      const formData = new FormData();
      formData.append("file", file,this.uniqueFileName);
      const upload$ = this.http.post(`${this.baseUri}/projectUpload`, formData, {
        reportProgress: true,
        observe: 'events'
      }).pipe(finalize(()=>this.reset()))
      this.uploadSub = upload$.subscribe(event =>{
        if (event.type == HttpEventType.UploadProgress) {
          if(event.total)
          this.uploadProgress = Math.round(100 * (event.loaded /event.total));
        }else if (event.type === HttpEventType.Response) {
          this.fileName = file.name;
          this.reset();
        }
      },)
    }

  }
```

- Buyers uploaded project :-

```
getAllProject(){
    this.authService.loggedUser().subscribe(
      (res:any)=>{
        if(res.status=='ok' && res.data.Role=='buyer'){
          this.router.navigateByUrl('/')
        }
        if(res.status=='ok'){
          if(res.data.Category=='none'){
            this.projectService.getAllProject().subscribe(
              (res:any)=>{
                if(res.status=='ok'){
                  if(res.data.length==0){
                    this.error="Buyers haven't yet post project.";
                  }
                  else
                  this.projectList=res.data;
                }
              }
            )
          }
          else{
            let obj:any={
              category:res.data.Category
            }
            this.projectService.getProjectsOfCategory(obj).subscribe(
              (res:any)=>{
                if(res.status=='ok'){
                  if(res.data.length==0){
                    this.error="Buyers haven't yet post project In your Cateogry. If You want
to Change Category then go to profile section.";
                  }
```

```
            else
            this.projectList=res.data;
        }
      }
    )
  }
  }
  }
  }
  )
}
```

- Place Bid by Freelancer :-

```
placeBid(){
    this.bidForm.markAllAsTouched();
    if(this.bidForm.valid){
      this.projectService.getOneProject(this.id).subscribe(
        (res:any)=>{
          if(res.status=='ok'){
            this.numberOfBid=res.data.NumberOfBids
          }
        }
      )
      let obj:IBid={
        BidUser:this.userId,
        project:this.id,
        BidAmount:this.bidAmount?.value,
        DeliveredDays:this.days?.value,
        Proposal:this.proposal?.value
      }
    this.bidService.placeBid(obj).subscribe(
      (res:any)=>{
        if(res.status=='ok'){
          let bid=this.numberOfBid+1;
          console.log(bid);
          let Obj={
            id:this.id,
            bid:bid
          }
          this.projectService.updateBid(Obj).subscribe(
            (res:any)=>{
              if(res.status=='ok'){
                this.router.navigate(['/findjobsProjects/',this.id,'Proposals']);
              }
            }
          )
        }
      }
    )
    }
}
```

- Get all bids of project :-

```
getAllBids(){
    this.projectService.getOneProject(this.id).subscribe(
      (res:any)=>{
        if(res.status=='ok' && (res.data.Status=='Hired' || res.data.Status=='completed')){
          this.hiredProject=true;
          this.bidService.getBidOfHiredProject(this.id).subscribe(
            (res:any)=>{
              if(res.status=='ok'){
                this.bids=res.data;
              }
            }
          )
        }
        else{
          this.bidService.getBidOfProject(this.id).subscribe(
            (res:any)=>{
              if(res.status=='ok'){
                if(res.data.length==0){
                  this.error="No one Place Bid Yet!";
                }
                else
                this.bids=res.data;
              }
            }
          )
        }
      }
    )
  }
```

- Freelancer's hired projects :-

```
getHiredProject(){
    this.authService.loggedUser().subscribe(
      (res:any)=>{
        if(res.status=='ok'){
          this.userId=res.data._id;
          this.projectService.getAllHiredProject(this.userId).subscribe(
            (res:any)=>{
              if(res.status=='ok'){
                {
                  if(res.data.length==0)
                  {
                    this.error="No Buyer has hired you yet!";
                  }
                  else
                  this.projectList=res.data;
                }
              }
            }
          )
        }
      }
    )
  }
```

- Project file upload api :-

```
route.post('/projectUpload',(req, res,next)=> {

    let file = req['files'].file;
    let uploadPath=path.join(__dirname,"uploads")+"/"+file.name;
    file.mv(uploadPath,(err)=>{
        if(err){
            return next(err);
        }
        else{
            return res.json({status:'ok',data:'file uploaded'});
        }
        })
    });
```

- Login user api :-

```
route.post('/login',(req,res)=>{
    user.findOne({Email:req.body.Email},(err,data)=>{
        if(err){
            console.log(err);
        }
        else{
            if(!data){
            return res.json({status:'error',error:'invalid email/password'})
            }
            comparePassword(req.body.Password,data.Password,(flag)=>{
                if(flag){
                    const token=jwt.sign({
                        id:data._id,
                        // Email:data.Email,
                        // Role:data.Role
                    },config.TOKEN_SECRET)
                    return res.json({status:'ok',data:token})
                }
                else{
                    return res.json({status:'error',error:'invalid email/password'});
                }
            });

        }
    })
})
```

- Register user api :-

```
route.post("/register", (req, res, next) => {
    let Obj = req.body;
    if(!Obj.Email){
        return res.json({status:'error',error:'email required'})
    }
    const ps = bcrypt.hash(Obj.Password, 10, (err, pass) => {
        if (err) {
            return next(err);
        }
        user.create({
            Email: Obj.Email,
            FirstName: Obj.FirstName,
```

```javascript
            LastName: Obj.LastName,
            Password: pass,
            Role: Obj.Role,
            profileImg:Obj.profileImg
        }, (err, data) => {
            if(err){
                if (err.code==11000) {
                    // console.log(Obj.Email);
                    return res.json({status:'error',error:'email already in use'});
                }
                else
                return next(err);
            }
            else
            return res.json({status:'ok'})
        })
    });

})
```

5. Screenshots

- Register:-

Freelancer

Register User

Email
hire-ddit@ddu.ac.in

Continue With Email

Already have an Account? Sign In

f   𝕏   ◎   ✉
© Copyright 2021 Freelancer

Complete your free account setup

hire-ddit@ddu.ac.in

FirstName
hire

LastName
ddit

Enter your password
••••••••••••   🚫

◉ Hire for a project   ◯ Work as freelancer

Sign Up

Already have an Account? Sign In

- Login:-

- Home:-

- How It Work:-

For Buyer

Step 1 Post a Project	Step 2 Hire Freelancer	Step 3 Project Completion
In this Step 1, Buyer Just Need to Post a Project to hire some freelancer with all necessary details like budget, category, duration of the project.	In this Step 2, Buyer Can hire freelancer after seeing all the bids by different Freelancers. They both can interact with eachother regarding their work requirements and all.	In this Step 3, Freelancer will deliver the final project to buyer and if buyer satisfied with the work, then buyer can complete the work.

For Freelancers

Step 1 Choose a Project	Step 2 Take the Project	Step 3 Deliver Project
In this Step 1, Freelancer will have to choose the project, which he / she wants to do, and can complete it within specified timeline.	In this Step 2, Freelancer will have to interact with buyer and decide all the requirements and if everything is perfect then buyer will give project to buyer.	In this Step 3, Freelancer have to deliver the work to buyer as per the working details.

f 𝕏 ⊙ ✉
© Copyright 2021 Freelancer

- Buyer Post Project :-

Freelancer   Post Project   My Project ⁰   How it Work   Categories ▾   Hii hire   Logout

Tell us what you need done

Choose a name for your project

MEAN Stack Devlopment

Tell us more about your project

teams, customers, stakeholders and time. This page describes all the amazing new features and options that come with our premium templates. Creative Project Titles will help to easily understand your brand or product. Project Names should be professional and Easy to recognize and remember.

Freelancing-Site_Report.docx 📎

Next

Freelancing-Site_Report.docx 📎

Category

Development & It ⌄

Minimum enter a budget

1000

Maximum enter a budget

5000

Duration Days

4

Post Project

- Buyer's My Project :-

Freelancer

Post Project   **My Project** ①   How it Work   Categories ⌄   Hii hire   **Logout**

MEAN Stack Devlopment   ₹ 1000 - 5000 INR
Oct 23, 2021, 8:16:59 PM

A Powerful & Multi-purpose Templates for project management. Now seamlessly manage your projects, tasks, meetings, presentations, teams, customers, stakeholders and time. This page describes all the amazing new features and options that come with our premium templates. Creative Project Titles will help to easily understand your brand or product. Project Names should be professional and Easy to recognize and remember.

Development & It

pending   🔨 0 Bid   4 Days Duration

f 🐦 📷 ✉
© Copyright 2021 Freelancer

- Buyer's My Project Details:-

Freelancer   Post Project   My Project ①   How it Work   Categories ▾   Hii hire   **Logout**

MEAN Stack Devlopment 🗑

Details   Proposals

Project Details   ₹ 1000 − 5000 INR

A Powerful & Multi-purpose Templates for project management. Now seamlessly manage your projects, tasks, meetings, presentations, teams, customers, stakeholders and time. This page describes all the amazing new features and options that come with our premium templates. Creative Project Titles will help to easily understand your brand or product. Project Names should be professional and Easy to recognize and remember.

Project Category   4 Days duration
 Development & It
Attached Document
Freelancing-Site_Report.docx

- Freelancer Find Jobs (Buyer Posted Project):-

Freelancer   **Find Jobs**   My Projects   How it Work   Categories ▾   Hii freelancer   **Logout**

↻ View New Projects

MEAN Stack Devlopment   ₹ 1000 -5000 INR
Oct 23, 2021, 8:16:59 PM

A Powerful & Multi-purpose Templates for project management. Now seamlessly manage your projects, tasks, meetings, presentations, teams, customers, stakeholders and time. This page describes all the amazing new features and options that come with our premium templates. Creative Project Titles will help to easily understand your brand or product. Project Names should be professional and Easy to recognize and remember.

Development & It

⚒ 0 Bid   4 Days Duration

f 🐦 ⓘ ✉
© Copyright 2021 Freelancer

- Freelancer Place Bid:-

Place a Bid on this Project

Bid Amount

₹ 4000

This project will be delivered in

3   **Days**

Describe your proposal

1) "I can complete your project on time and within your budget."
2) "I have worked
on similar projects to what you are looking for, and I am confident I can exceed your expectations."

Place Bid

Freelancer   Find Jobs   My Projects   How it Work   Categories ▼   Hii freelancer   Logout

MEAN Stack Devlopment

Details   Proposals

freelancer ddit   **₹4000 INR**   not Hired
freelancer-ddit@ddu.ac.in   in 3 days

1) "I can complete your project on time and within your budget." 2) "I have worked on similar projects to what you are looking for, and I am confident I can exceed your expectations." 3) "I can achieve the results that you are asking for." 4) "I have attached samples of work very similar to what you are seeking." 5) "I would love to work on your project." 6) " I read through the job details extremely carefully and I am absolutely sure that I can do the project very well." 7) "I am an experienced business writer and marketing expert. I can create an _____ and create the webcopy that will have an instant connect with your end users."

- **Buyer Proposals For Their Posted Project:-**

Freelancer

Post Project   My Project ¹   How it Work   Categories ▾   Hii hire   **Logout**

MEAN Stack Devlopment 🗑

Details   **Proposals**

↻ View New Bids

freelancer ddit   **₹4000 INR**   Hire Freelancer
freelancer-ddit@ddu.ac.in   in 3 days

1) "I can complete your project on time and within your budget." 2) "I have worked on similar projects to what you are looking for, and I am confident I can exceed your expectations." 3) "I can achieve the results that you are asking for." 4) "I have attached samples of work very similar to what you are seeking." 5) "I would love to work on your project." 6) " I read through the job details extremely carefully and I am absolutely sure that I can do the project very well." 7) "I am an experienced business writer and marketing expert. I can create an _____ and create the webcopy that will have an instant connect with your end users."

- **Buyer My Project:-**

Freelancer

Find Jobs   **My Projects**   How it Work   Categories ▾   Hii freelancer   **Logout**

↻ View New Projects

MEAN Stack Devlopment   ₹ 1000 - 5000 INR
Oct 23, 2021, 8:16:59 PM

A Powerful & Multi-purpose Templates for project management. Now seamlessly manage your projects, tasks, meetings, presentations, teams, customers, stakeholders and time. This page describes all the amazing new features and options that come with our premium templates. Creative Project Titles will help to easily understand your brand or product. Project Names should be professional and Easy to recognize and remember.

Development & It

Hired   ⚒ 1 Bid   4 Days Duration

f 🐦 📷 ✉

- Buyer's Profile:-

Freelancer   Post Project   My Project   How it Work   Categories ▾   Hii hire   Logout

hire-ddit

Member Since: Oct 2021

Description   Edit description

My name is Shubham Shingala . Lorem ipsum dolor sit amet consectetur adipisicing elit. Mollitia, libero illum temporibus totam, hic cupiditate enim suscipit ad sapiente officiis facilis tempore nisi, inventore iusto.

- Freelancer's Profile:-

freelancer-ddit

Member Since: Oct 2021

Description   Edit description

hiii everyone my name is freelancer-ddit.

Category   Add new
Development & It

Education   Add new
B.Tech. - Computer Engineering
DDIT, , Graduated 2019

Certification   Add new
Add certificate

6. Conclusion

The functionalities are implemented in system after understanding all the System modules according to the requirements. Functionalities that are Successfully implemented in the system are :

- User Registration
- Login
- User authentication
- Logout
- Update Profile
- Post Project (Buyer)
- My Project (Buyer)
- Find Jobs (Freelancer)
- My Project (Freelancer)
- Update Status Of Project
- Place Bid (Freelancer)

7.Limitations and Future Enhancements

In future, we can add some functionalities like chat, video call between buyer & freelancer to make their interactions more specific. We can add payment gateway as well, we can add virus checker when someone upload the file to show alert that file contains virus. also, we can add login using google or facebook as well using their apis. We can add rating & reviews for both side like buyer & freelancer so both side easy to place bids or hire freelancers.

8. Reference / Bibliography

Following links and websites were referred during the development of this Project:

https://stackoverflow.com/

https://github.com/

https://angular.io/

https://nodejs.org/

https://expressjs.com/

https://docs.mongodb.com/