

EduGuide

GROUP MEMBERS:

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FRAMEWORK: Web-based Application in Node.JS

ABOUT: EduGuide is a web-based portal for student resource management. It enables students of different universities to upload, view and download past papers, quizzes and, assignments of different subjects of their respective universities.

TAGLINE: Find the latest educational resources for all Pakistani universities! Search and upload quizzes, assignments, and past papers for any university, any department, any course in Pakistan.

FUNCTIONALITIES:

- User can sign up /login
- User can view his profile
- User can edit his profile
- User can search for past papers for course of a particular university
- User can search for assignments for course of a particular university
- User can search for quizzes for course of a particular university
- User can upload a past paper/ quiz / assignment
- User can view his uploaded documents
- User can download the document in either his phone or account
- User is assigned a rank
- User's money increases on the number of contributions

PROBLEM STATEMENT:

Many students are unaware of the questioning pattern of the course they are enrolled in. They are not aware of the kind of questions that they are going to be asked nor do they have familiarity with the pattern of the questions. As a result, they either focus too much on less important stuff or neglect completely important topics which instructors usually ask in papers, quizzes and assignments. Ultimately, they find it very difficult to take their exam, lose confidence and don't score well.

Our portal directly addresses this issue. With our portal, resource management becomes easier. A student can not only benefit from the portal but can also become a contributor at the same time. The

student only has to get himself to register on our site and after registration, he may be able to search his desired past paper, quiz, assignment with just one click. Everything is arranged in an organized manner. Moreover, a student may upload resources as well.

Request / Responses of APIs

No.	Screen	Method	Request	Response
1	Landing Screen	GET (display screen) POST (login button)	<pre>{ "username": "username", "password": "password" }</pre>	SUCCESS: <pre>{ "status-code": 200, "message": "Login Page Retrieved!" }, { "status-code": 201, "message": "Session Created!", "username": "mehar", "_id": "001" }</pre> FAILURE: <pre>{ "status-code": 404, "message": "Requested resource does not exist!" }, { "status-code": 603, "message": "Incorrect password!" }</pre>
2	Sign Up Screen	GET (display screen) POST (sign up)	<pre>{ "picture": "picture", "username": "username", "password": "password", "emailID": "email", "university": "universityName", "rollNumber": "rollNumber", "age": "age" }</pre>	SUCCESS: <pre>{ "status-code": 200, "message": "SignUp Page Retrieved!" }, { "status-code": 200, "message": "Sign Up Successful!", "_id": "001" "username": "mehar fatima", "email": "meharfatimak@gmail.com", "university": "FAST NUCES", "rollNumber": "16L4388", "age": "21" }</pre> FAILURE: <pre>{ "status-code": 610, "message": "User exists!" }, { "status-code": 630, "message": "Passwords do not match!" }</pre>

				<pre> }, { "status-code": 611, "message": "Fields are required!" } </pre>
3	Home Screen	GET	<pre> { "_id": "001" } </pre>	<p>SUCCESS:</p> <pre> { "status-code": 200, "message": "Home Screen Retrieved!", "Universities": { "name": "FAST", "location": "Lahore", "path": "whatever.png" } } </pre> <p>FAILURE:</p> <pre> { "status-code": 403, "message": "Forbidden!" } </pre>
4	Department Screen	GET	<pre> { "_id": "001", "universityID": "uld", } </pre>	<p>SUCCESS:</p> <pre> { "status-code": 200, "message": "Department Screen Retrieved!", "Universities": { "name": "FAST", "location": "Lahore", "path": "whatever.png" }, "Departments": { "name": "CS", "code": "01", "path": "whatever.png" } } </pre> <p>FAILURE:</p> <pre> { "status-code": 404, "message": "Requested resource does not exist!" }, { "status-code": 403, "message": "Forbidden!" } </pre>
5	All Subjects Screen	GET	<pre> { "_id": "001", "universityID": "uid", "departmentID": "Did", } </pre>	<p>SUCCESS:</p> <pre> { "status-code": 200, "message": "Subject Screen Retrieved!", "Universities": { "name": "FAST", "location": "Lahore", "path": "whatever.png" }, "Departments": { "name": "CS", "code": "01", "path": "whatever.png" }, } </pre>

				<p>“Courses”: {“name”: “SMD”, “code”: “421”, “path”: “whatever.png”}, {“name”: “Web”, “code”: “423”, “path”: “whatever.png”}</p> <p>} </p> <p>FAILURE:</p> <p>{</p> <p>“status-code”: 404,</p> <p>“message”: “Requested resource does not exist!”</p> <p>},</p> <p>{</p> <p>“status-code”: 403,</p> <p>“message”: “Forbidden!”</p> <p>}</p>
6	Course Screen	GET	<p>{</p> <p>“_id”: “001”,</p> <p>“universityID”: “uid”,</p> <p>“departmentID”: “Did”,</p> <p>“courseID”: “cid”,</p> <p>}</p>	<p>SUCCESS:</p> <p>{</p> <p>“status-code”: 200,</p> <p>“message”: “Course Screen Retrieved!”,</p> <p>“courses”: {“name”: “SMD”, “code”: “421”, “path”: “whatever.png”, “documents: [DOCUMENT]”},</p> <p>“Universities”: {“name”: “FAST”, “location”: “Lahore”, “path”: “whatever.png”},</p> <p>“Departments”: {“name”: “CS”, “code”: “01”, “path”: “whatever.png”}</p> <p>}</p> <p>FAILURE:</p> <p>{</p> <p>“status-code”: 404,</p> <p>“message”: “Requested resources does not exist!”</p> <p>},</p> <p>{</p> <p>“status-code”: 403,</p> <p>“message”: “Forbidden!”</p> <p>}</p>
7	Assignment Screen	GET	<p>{</p> <p>“_id”: “001”,</p> <p>“universityID”: “uid”,</p> <p>“departmentID”: “Did”,</p> <p>“courseID”: “cid”}</p>	<p>SUCCESS:</p> <p>{</p> <p>“status-code”: 200,</p> <p>“message”: “Assignment Screen Retrieved!”,</p> <p>“courses”: {“name”: “SMD”, “code”: “421”, “path”: “whatever.png”},</p> <p>“Universities”: {“name”: “FAST”, “location”: “Lahore”, “path”: “whatever.png”},</p> <p>“Departments”: {“name”: “CS”, “code”: “01”, “path”: “whatever.png”},</p> <p>}</p>

				<pre> "Assignment": {"name": "TicTacToe", "path": "wherever.pdf"} } FAILURE: { "status-code": 404, "message": "Requested resources does not exist!" }, { "status-code": 403, "message": "Forbidden!" } </pre>
8	Past Papers Screen	GET	<pre> { "_id": "001", "universityID": "uid", "departmentID": "Did", "courseID": "cID"} </pre>	<pre> SUCCESS: { "status-code": 200, "message": "Past Papers Screen Retrieved!", "courses": {"name": "SMD", "code": "421", "path": "whatever.png"}, "Universities": {"name": "FAST", "location": "Lahore", "path": "whatever.png"}, "Departments": {"name": "CS", "code": "01", "path": "whatever.png"}, "PastPapers": {"name": "Mid1", "path": "wherever.pdf"} } FAILURE: { "status-code": 404, "message": "Requested resources does not exist!" }, { "status-code": 403, "message": "Forbidden!" } </pre>
9	Quizzes Screen	GET	<pre> { "_id": "001", "universityID": "uid", "departmentID": "Did", "courseID": "cID"} </pre>	<pre> SUCCESS: { "status-code": 200, "message": "Quizzes Screen Retrieved!", "courses": {"name": "SMD", "code": "421", "path": "whatever.png"}, "Universities": {"name": "FAST", "location": "Lahore", "path": "whatever.png"}, "Departments": {"name": "CS", "code": "01", </pre>

				<pre> "path": "whatever.png"}, "Quizzes": {"name": "Quiz2", "path": "wherever.pdf"} } FAILURE: { "status-code": 404, "message": "Requested resources does not exist!" }, { "status-code": 403, "message": "Forbidden!" } </pre>
10	Upload Document	GET (display screen) POST (upload)	<pre> { "_id": "001", "university": "university_name", "department": "department_name", "course": "course", "CourseCode": "code", "type": "quiz/pastPaper/assignments", "picture": "picture" } </pre>	<pre> SUCCESS: { "status-code": 200, "message": "Page Retrieved!" }, { "status-code": 201, "message": "Uploaded!", "documentID": "003321", "university": "LUMS", "department": "CS", "course": "TBW", "CourseCode": "SS453", "picture": "what.png", "type": "quiz" } FAILURE: { "status-code": 404, "message": "Requested resource does not exist!" }, { "status-code": 403, "message": "Forbidden!" }, { "status-code": 611, "message": "Fields are required!" }, { "status-code": 614, "message": "University/Department/Course </pre>

				invalid!" }
11	Uploaded Documents Screen	GET	{ "_id": "001" "documentID": "docID" }	SUCCESS: { "status-code": 200, "message": "Uploaded Documents Screen Retrieved!", "DOCUMENTS": "[{"Assignment":{"name": "TicTacToe", "path": "wherever.pdf"}}, {"Quiz":{"name": "Quiz2", "path": "wherever.pdf"}}, {"PastPaper":{"name": "mid2", "path": "wherever.pdf"}}]" } FAILURE: { "status-code": 404, "message": "Requested resources does not exist!" }, { "status-code": 403, "message": "Forbidden!" } }
12	Saved Documents	GET	{ "_id": "001", "documentID": "docID" }	SUCCESS: { "status-code": 200, "message": "Saved Documents Screen Retrieved!", "DOCUMENTS": "[{"Assignment":{"name": "TicTacToe", "path": "wherever.pdf"}}, {"Quiz":{"name": "Quiz2", "path": "wherever.pdf"}}, {"PastPaper":{"name": "mid2", "path": "wherever.pdf"}}]" } FAILURE: { "status-code": 404, "message": "Requested resources does not exist!" }, { "status-code": 403, "message": "Forbidden!" } }
13	User Profile	GET	{ "_id": "001"	SUCCESS: {

			<pre> “picture”: “picture”, “username”: “username”, “password”: “password”, “emailID”: “email”, “university”: “universityName”, “roll Number”: “rollNumber”, “age”: “age”} </pre>	<pre> “status-code”: 200, “message”: “Screen Retrieved!”, “User”: {“username”: “Me har”, “password”: “12344”, “emailID”: “me harfatimak@gmail.com”, “university”: “FAST”, “RollNumber”: “16L4388”, “age”: “21”} } FAILURE: { “status-code”: 404, “message”: “Requested resources does not exist!” }, { “status-code”: 403, “message”: “Forbidden!” } </pre>
14	Edit Profile	GET (display screen) PUT (edit profile)	<pre> { “_id”: “001” “picture”: “picture”, “username”: “username”, “password”: “password”, “emailID”: “email”, “university”: “universityName”, “roll Number”: “rollNumber”, “age”: “age” } </pre>	<pre> SUCCESS: { “status-code”: 200, “message”: “Edit Screen Retrieved!” }, { “status-code”: 201, “message”: “User Account Updated!” } FAILURE: { “status-code”: 404, “message”: “Requested resources does not exist!” }, { “status-code”: 403, “message”: “Forbidden!” }, { “status-code”: 630, “message”: “Passwords do not match!” }, { “status-code”: 611, “message”: “Fields are required!” } </pre>
15	Change Password	GET (display	<pre> { “_id”: “001”, </pre>	<pre> SUCCESS: { </pre>

	Screen	screen) PATCH (update password)	<pre> “old_password”: “password”, “new_password”: “password” } </pre>	<pre> “status-code”: 200, “message”: “Change Password Screen Retrieved!” }, { “status-code”: 201, “message”: “Password Updated!” } FAILURE: { “status-code”: 404, “message”: “Requested resources does not exist!” }, { “status-code”: 403, “message”: “Forbidden!” }, { “status-code”: 630, “message”: “Passwords do not match!” }, { “status-code”: 611, “message”: “Fields are required!” }. { “status-code”: 603, “message”: “Incorrect Password!” } </pre>
16	Search Queries	GET	<p>For Home Screen:</p> <pre> { “_id”: “001”, “universityID”: “uid” } </pre> <p>For Department Screen:</p> <pre> { “_id”: “001”, “universityid”: “uid”, “departmentid”: “Did” } </pre> <p>For Subject Screen:</p> <pre> { “_id”: “001”, “universityID”: “uid”, “departmentid”: “Did”, “courseid”: “Cid” } </pre>	<p>SUCCESS:</p> <p>Amalgamation of Home / Department / Subject Screen Response</p> <pre> { “status-code”: 201, “message”: “Successfully Searched!”, “Universities”: {“name”: “FAST”, “location”: “Lahore”, “path”: “whatever.png”} “Departments”: {“name”: “CS”, “code”: “01”, “path”: “whatever.png”}, “Courses”: {“name”: “SMD”, “code”: “421”, “path”: “whatever.png”}, {“name”: “Web”, “code”: “423”, “path”: “whatever.png”} } </pre> <p>Amalgamation of PastPaper / Quiz / Assignment Screen Response</p> <pre> { “status-code”: 201, </pre>

			<p>For Assignments Screen:</p> <pre>{ "_id": "001", "universityid": "uid", "departmentid": "Did", "courseid": "Cid", "assignmentid": "assID" }</pre> <p>For Quizzes Screen:</p> <pre>{ "_id": "001", "universityid": "uid", "departmentid": "Did", "courseid": "Cid", "quizid": "qid" }</pre> <p>For Past Papers Screen:</p> <pre>{ "_id": "001", "universityid": "uid", "departmentid": "Did", "courseid": "Cid", "pastPaperid": "pprID" }</pre>	<pre>"message": "Successfully Searched!", "PastPapers": {"name": "Mid1", "path": "wherever.pdf"}, "Quizzes": {"name": "Quiz1", "path": "wherever.pdf"}, "Assignments": {"name": "Assign1", "path": "wherever.pdf"} }</pre> <p>FAILURE:</p> <pre>{ "status-code": 404, "message": "Requested resource does not exist!" }, { "status-code": 403, "message": "Forbidden!" }</pre>
17	File Download	GET	<p>For Assignment Screen:</p> <pre>{ "_id": "001", "universityid": "uid", "departmentid": "Did", "courseid": "Cid", "assignmentid": "assID" }</pre> <p>For Quizzes Screen:</p> <pre>{ "_id": "001", "universityid": "uid", "departmentid": "Did", "courseid": "Cid", "quizid": "qid" }</pre> <p>For Past Papers Screen:</p> <pre>{ "_id": "001", "universityid": "uid", "departmentid": "Did", "courseid": "Cid", "pastPaperid": "pprID" }</pre>	<p>SUCCESS:</p> <pre>{ "status-code": 200, "message": "Retrieved!" }, { "status-code": 201, "message": "Successfully Downloaded!" }</pre> <p>FAILURE:</p> <pre>{ "status-code": 404, "message": "Requested resource does not exist!" }, { "status-code": 403, "message": "Forbidden!" }</pre>

			For Uploaded Documents Screen: <pre>{ "_id": "001", "documentsid": "docid" }</pre> For Saved Documents Screen: <pre>{ "_id": "001", "documentsid": "docid" }</pre>	
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Database Schema

This is a tentative database design and is subject to change.

USER

Username: {type: String, unique: true}

Password: {type: String}

Email: {type: String, unique: true}

Age: {type: Number}

University: {type: String}

Department: {type: String}

Semester: {type: String}

Roll number: {type: String}

Documents: [DOCUMENT]

UNIVERSITY

Name: {type: String}

Location: {type: String}

Dept: [DEPARTMENT]

Picture: {type: String}

DEPARTMENT

Code: {type: String, unique: true}

Name: {type: String}

Picture: {type: String}

COURSE

Title: {type: String}

Code: {type: String}

Department: {type: String}

Documents: [DOCUMENT]

Picture: {type: String}

DOCUMENT

Assignments: [ASSIGNMENT]

Quizzes: [QUIZ]

Past Papers: [PASTPAPER]

ASSIGNMENT

Name: {type: String}

Path: {type: String}

QUIZ

Name: {type: String}

Path: {type: String}

PASTPAPER

Name: {type: String}

Path: {type: String}

SCREENS

SITE NAME: EduGuide

eduguide.com/ ⇒ /

1)

A hand-drawn sketch of a landing page. At the top center is a circle labeled 'LOGO'. Below it are two horizontal input fields labeled 'email:' and 'password:'. At the bottom center is a rectangular button labeled 'LOGIN' with 'sign up' written below it.

SCREEN: LANDING PAGE

URL: eduguide.com/
Method: GET

LOGIN BUTTON ⇒ HOME SCREEN

URL: eduguide.com/
Method: POST

SIGNUP BUTTON ⇒ SIGN UP SCREEN

URL: /SignUp
Method: GET

2)

A hand-drawn sketch of a sign-up page. At the top left is the text 'SIGN UP'. Below it are four horizontal input fields labeled 'Name:', 'Age:', 'University:', and 'Department:'. To the right of these fields is a circle labeled 'upload picture'. At the bottom left is a rectangular button labeled 'SIGN UP'.

SCREEN: SIGN UP SCREEN

URL: eduguide.com/signup
Method: GET

SIGN UP BUTTON

URL: /SignUp
Method: POST

3)

A hand-drawn sketch of a dashboard. At the top is the text 'DASH BOARD'. Below it are three horizontal rectangular boxes, followed by a vertical ellipsis indicating more options.

A hand-drawn sketch of a home screen. At the top left is a hamburger menu icon. To its right is a circle with a person icon, labeled 'user profile' with an arrow. Below the menu icon is the text 'UNIVERSITIES'. Underneath is a search bar with a magnifying glass icon and a text input field. Below the search bar is a grid of four university cards. Each card has a '(pic)' placeholder at the top, a name (FAST, LOMS, NUST, UET) in the middle, and a vertical ellipsis at the bottom.

user profile

SCREEN: HOME SCREEN

URL: /home
Method: GET

PROFILE BUTTON ⇒ PROFILE SCREEN

URL: /profile
Method: GET

UNIVERSITY Button ⇒ DEPT SCREEN

URL: /:universityName/department
Method: GET

SEARCH

URL: /:universityName
Method: GET

Key:

Screen

Other buttons on screen

NEXT SCREEN

4)

DEPARTMENTS

UNIVERSITY NAME

CS Name: Computer Sci

EE Name: Electrical

SCREEN: Department Screen

URL: /:UniversityName/ departments

Method: GET

SEARCH

URL: /:UniversityName/:departmentName

Method: GET

Department Button → SUBJECT SCREEN

URL: /:UniversityName/:deptName/ subjects

Method: GET

5)

ALL SUBJECTS

UNIVERSITY NAME

DEPARTMENT NAME

Total Subjects: _____

Pic Name: _____

No. of Docs: _____

Pic Name: _____

No. of Docs: _____

SCREEN: ALL SUBJECTS

URL: /:UniversityName/:deptName/ subjects

Method: GET

SEARCH

URL: /:UniversityName/:departmentName/:subjectName

Method: GET

Subject Button → Courses Screen

URL: /:UniversityName/:

Method: GET

6)

UNI NAME: _____

DEPT NAME: _____

COURSE NAME

of Docs: _____

VIEW PAST PAPERS

VIEW ASSIGNMENT

VIEW QUIZZES

SCREEN: Course Screen

URL: /:UniversityName/:deptName/:subjectName

Method: GET

VIEW Past Papers → PAST PAPER SCREEN

URL: /:UniversityName/:deptName/:subjectName/ pastpapers

Method: GET

VIEW ASSIGNMENTS → ASSIGNMENT SCREEN

URL: /:UniversityName/:deptName/:subjectName/ assign

Method: GET

VIEW QUIZZES → QUIZZES SCREEN

URL: /:UniversityName/:deptName/:subjectName/ quiz

Method: GET

7)

SCREEN: ASSIGNMENTS

URL: /:universityName/:deptName/:subjectName/assignments
Method: GET

SEARCH

URL: /:universityName/:deptName/:subjectName/:assignName
Method: GET

DOWNLOAD

URL: /:universityName/:deptName/:subjectName/download/:name
Method: GET

8)

SCREEN: QUIZZES

URL: /:universityName/:deptName/:subjectName/quizzes
Method: GET

SEARCH

URL: /:universityName/:deptName/:subjectName/:quizName
Method: GET

DOWNLOAD

URL: /:universityName/:deptName/:subjectName/download/:name
Method: GET

9)

SCREEN: PAST PAPERS

URL: /:universityName/:deptName/:subjectName/pastpapers
Method: GET

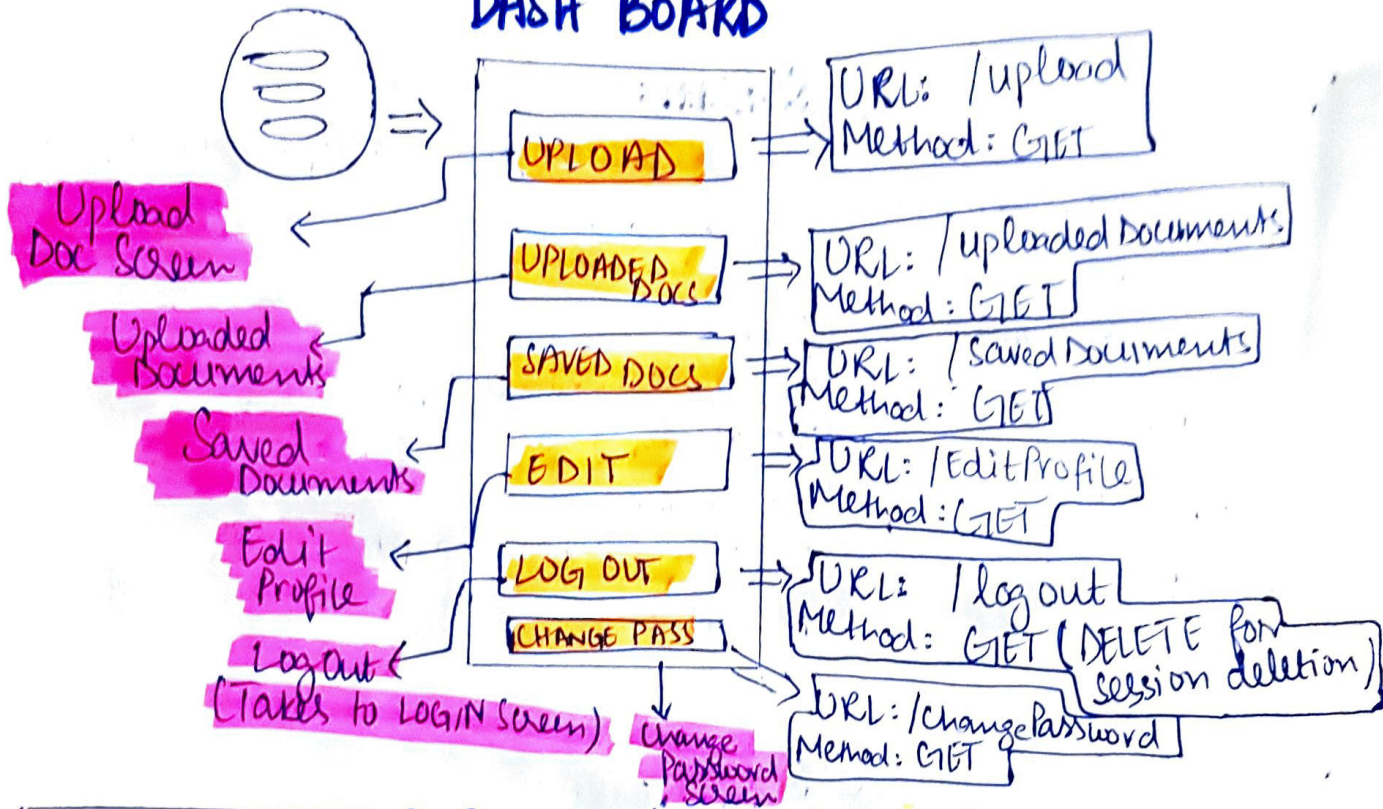
SEARCH

URL: /:universityName/:deptName/:subjectName/:pastpaperName
Method: GET

DOWNLOAD

URL: /:universityName/:deptName/:subjectName/download/:name
Method: GET

DASH BOARD



10)

Upload Picture

Name: _____
 Semester: _____
 University: _____
 Dept: _____
 :
 :

UPLOAD

SCREEN: Upload Document Screen

URL: /upload
Method: GET

UPLOAD ⇒ Uploaded Documents Screen

URL: /upload
Method: POST

12)

11)

UPLOADED DOC

DOC

DOC: Name
DOC: Type

⋮

⋮

⋮

SCREEN: UPLOADED DOCUMENTS

URL: /uploaded documents
Method: GET

DOWNLOAD

URL: /uploaded documents/download/:name
Method: GET

SCREEN: Saved Documents

URL: /saved documents
Method: GET

DOWNLOAD

URL: /saved documents/download/:name

SAVED DOC

DOC

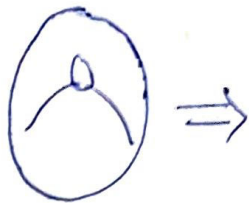
DOC: Name
DOC: Type

⋮


⋮

⋮

USER PROFILE



B)

EDIT

Mehar Fatima


Uploads


Downloads

07

27

Rank: 9

 mehar.fatimak@gmail.com

 0324-xxxx111

FAST-NUCES

...

SCREEN: PROFILE

URL: /profile



Method: GET

EDIT BUTTON → EDIT SCREEN

URL: /EditProfile


Method: GET

14)



NAME:

EMAIL:



PHONE:

...

SCREEN: EDIT PROFILE

URL: /EditProfile

Method: GET

SAVE BUTTON → PROFILE SCREEN

URL: /EditProfile

Method: PUT

15)

CHANGE PASSWORD

OLD:

NEW:

CONFIRM:

SCREEN: CHANGE PASSWORD

URL: /changePassword

Method: GET

CHANGE BUTTON

URL: /changePassword

Method: PATCH