

UNIT TESTING

[1] Auth Controller

1) Sign Up

```
Tests:      1 failed, 4 passed, 5 total
Snapshots:  0 total
Time:       3.134 s
Ran all test suites matching /signup.1.early.test.js/i.
```

2) Verify Email

```
Tests:      3 passed, 3 total
Snapshots:  0 total
Time:       3.809 s, estimated 6 s
Ran all test suites matching /verifyEmail.early.test.js/i.
```

3) Login

```
Tests:      4 passed, 4 total
Snapshots:  0 total
Time:       3.577 s, estimated 4 s
Ran all test suites matching /login.early.test.js/i.
```

4) Forgot Password

```
Tests:      3 passed, 3 total
Snapshots:  0 total
Time:       3.609 s, estimated 6 s
```

5) Reset Password

```
Tests:      4 passed, 4 total
Snapshots:  0 total
Time:       3.77 s, estimated 6 s
Ran all test suites matching /resetPassword.early.test.js/i.
```

6) Logout

```
Tests:      3 passed, 3 total
Snapshots:  0 total
Time:       5 s
```

For auth controller file :

```
Tests:      4 failed, 18 passed, 22 total
Snapshots:  0 total
Time:       16.994 s
Ran all test suites matching /auth.controller.early.test/i.
```

File	Statements	Branches	Functions	Lines
auth.controller.js	93.1%	81/87	95.83%	23/24

[2] User Controller

1)Get Student

```
getStudents() getStudents method
Happy Paths
  ✓ should return a list of students when students are present in the database (4 ms)
  ✓ should return an empty array when no students are found (1 ms)
Edge Cases
  ✓ should handle database errors gracefully (24 ms)

Test Suites: 1 passed, 1 total
Tests:      3 passed, 3 total
Snapshots:  0 total
Time:       1.56 s, estimated 17 s
```

2) Get User

```
PASS src/controller/user.controller.early.test/getUser.early.test.js (15.921 s)
getUser() getUser method
Happy Paths
  ✓ should return user data when a valid user ID is provided (5 ms)
Edge Cases
  ✓ should return a 400 error if there is a database error

Test Suites: 1 passed, 1 total
Tests:      2 passed, 2 total
Snapshots:  0 total
Time:       17.201 s
```

3) Insert User

```
PASS src/controller/user.controller.early.test/insertUser.1.early.test.js
insertUser() insertUser method
  Edge cases
    ✓ should handle errors when saving a user fails (40 ms)
    ✓ should handle errors when fetching classes fails (8 ms)
    ✓ should handle errors when sending email fails (6 ms)

Test Suites: 1 passed, 1 total
Tests:       3 passed, 3 total
Snapshots:   0 total
Time:        1.855 s, estimated 2 s
```

4) Join Class

```
PASS src/controller/user.controller.early.test/joinClass.early.test.js
joinClass() joinClass method
  Happy Paths
    ✓ should successfully join a class when userId and classCode are valid (35 ms)
  Edge Cases
    ✓ should return 400 if userId or classCode is missing (1 ms)
    ✓ should return 404 if class is not found (1 ms)
    ✓ should return 404 if user is not found (5 ms)
    ✓ should return 400 if user is already in the class
    ✓ should return 500 if there is an internal server error (13 ms)

Test Suites: 1 passed, 1 total
Tests:       6 passed, 6 total
Snapshots:   0 total
Time:        1.679 s, estimated 17 s
```

5) Update User

```
PS C:\Users\VIDHI\OneDrive\Desktop\LFY\backend> npx jest updateUser.early.test.js
PASS src/controller/user.controller.early.test/updateUser.early.test.js
updateUser() updateUser method
  Happy Paths
    ✓ should update a user successfully and return the updated user (4 ms)
  Edge Cases
    ✓ should return a 400 error if the user ID is invalid (1 ms)
    ✓ should return a 400 error if the update data is invalid (1 ms)
    ✓ should handle unexpected errors gracefully

Test Suites: 1 passed, 1 total
Tests:       4 passed, 4 total
Snapshots:   0 total
Time:        1.543 s, estimated 17 s
```

6) Validate User

```
PS C:\Users\VIDHI\OneDrive\Desktop\LFY\backend> npx jest validateUser.early.test.js
PASS src/controller/user.controller.early.test/validateUser.early.test.js
  validateUser() validateUser method
    Happy paths
      ✓ should return a token and user data when credentials are valid (3 ms)
    Edge cases
      ✓ should return 401 when user is not found (1 ms)
      ✓ should return 401 when password is incorrect (1 ms)
      ✓ should return 400 when an error occurs (1 ms)

Test Suites: 1 passed, 1 total
Tests:       4 passed, 4 total
Snapshots:   0 total
Time:        1.639 s, estimated 17 s
```

7) Delete User

```
PS C:\Users\VIDHI\OneDrive\Desktop\LFY\backend> npx jest deleteUser.early.test.js
PASS src/controller/user.controller.early.test/deleteUser.early.test.js
  deleteUser() deleteUser method
    Happy Paths
      ✓ should delete a user and return the deleted user object when a valid ID is provided (3 ms)
    Edge Cases
      ✓ should return a 400 error if the user ID is not found (1 ms)
      ✓ should return a 400 error if an error occurs during deletion (1 ms)

Test Suites: 1 passed, 1 total
Tests:       3 passed, 3 total
Snapshots:   0 total
Time:        1.677 s, estimated 17 s
Ran all test suites matching /deleteUser.early.test.js/i.
```

For User Controller file:

```
Test Suites: 7 passed, 7 total
Tests:       25 passed, 25 total
Snapshots:   0 total
Time:        3.674 s, estimated 16 s
Ran all test suites matching /User.controller.early.test/i.
```

File	Statements	Branches	Functions	Lines
user.controller.js	100%	68/68	100%	67/67

[3] Class Controller

1) Insert Class

```
PASS src/controller/class.controller.early.test/insertClass.early.test.js
insertClass() insertClass method
  Happy Paths
    ✓ should create and save a new class successfully (29 ms)
  Edge Cases
    ✓ should return 400 if user data is missing (32 ms)
    ✓ should return 400 if subject is missing (8 ms)
    ✓ should handle errors during class save operation (13 ms)
    ✓ should handle errors during user update operation (13 ms)

Test Suites: 1 passed, 1 total
Tests:       5 passed, 5 total
Snapshots:   0 total
Time:        2.871 s, estimated 3 s
Ran all test suites matching /insertClass.early.test.js/i.
```

2) Update Class

```
PS C:\Users\VIDHI\OneDrive\Desktop\LFY\backend> npx jest updateClass.early.test.js
PASS src/controller/class.controller.early.test/updateClass.early.test.js
updateClass() updateClass method
  Happy Paths
    ✓ should update the class successfully and return the updated class (4 ms)
  Edge Cases
    ✓ should return a 400 error if the class ID is invalid (1 ms)
    ✓ should return a 400 error if the update data is invalid (1 ms)
    ✓ should handle unexpected errors gracefully (1 ms)

Test Suites: 1 passed, 1 total
Tests:       4 passed, 4 total
Snapshots:   0 total
Time:        2.016 s
Ran all test suites matching /updateClass.early.test.js/i.
```

3) Get Classes

```
PASS src/controller/class.controller.early.test/getClasses.early.test.js
getClasses() getClasses method
  Happy Paths
    ✓ should return an array of classes when valid codes are provided (20 ms)
  Edge Cases
    ✓ should return an empty array when no codes are provided (3 ms)
    ✓ should return an array with null values for non-existent class codes (8 ms)
    ✓ should handle errors gracefully and return a 400 status with an error message (2 ms)

Test Suites: 1 passed, 1 total
Tests:       4 passed, 4 total
Snapshots:   0 total
Time:        2.144 s
```

For Class Controller:

```
Tests:      13 passed, 13 total
Snapshots:  0 total
Time:       2.914 s, estimated 3 s
Ran all test suites matching /class.controller.early.test/i.
```

File	Statements	Branches	Functions	Lines
class.controller.js	100%	29/29	100%	5/5

[4] Lesson Controller

1) Insert Lesson

```
Tests:      1 failed, 3 passed, 4 total
Snapshots:  0 total
Time:       2.271 s
Ran all test suites matching /insertLesson.early.test.js/i.
```

2) Get Lesson

```
Tests:      4 passed, 4 total
Snapshots:  0 total
Time:       1.873 s
```

3) Update Lesson

```
Tests:      3 passed, 3 total
Snapshots:  0 total
Time:       2.132 s
Ran all test suites matching /updateLesson.early.test.js/i.
```

4) Delete Lesson

```
Test Suites: 1 failed, 1 passed, 2 total
Tests:      3 passed, 3 total
Snapshots:  0 total
Time:       1.65 s
```

For lesson controller file :

```
Tests:      1 failed, 13 passed, 14 total
Snapshots:  0 total
Time:       3.156 s
Ran all test suites matching /lesson.controller.early.test/i.
```

File	Statements	Branches	Functions	Lines
lesson.controller.js	100%	39/39	100%	6/6

[5]Assignment Controller

1) Insert Assignment

```
Tests:      3 passed, 3 total
Snapshots:  0 total
Time:       1.756 s
Ran all test suites matching /insertAssignment.early.test.js/i.
```

2) Get Assignment

```
Tests:      3 passed, 3 total
Snapshots:  0 total
Time:       1.702 s
Ran all test suites matching /getAssignments.early.test.js/i.
```

3) Update Assignment

```
Tests:      3 passed, 3 total
Snapshots:  0 total
Time:       1.629 s
Ran all test suites matching /updateAssignment.early.test.js/i.
```

4) Submit Assignment

```
Tests:      4 passed, 4 total
Snapshots:  0 total
Time:       1.671 s
Ran all test suites matching /submitAssignment.1.early.test.js/i.
```

5) Delete Assignment

```
Tests:      3 passed, 3 total
Snapshots:  0 total
Time:       1.617 s
Ran all test suites matching /deleteAssignment.early.test.js/i.
```

6) Submit Work

```
Tests:      3 passed, 3 total
Snapshots:  0 total
Time:       1.73 s
Ran all test suites matching /submitWorkDetails.1.early.test.js/i.
```

For Assignment controller file :

```
Tests:      19 passed, 19 total
Snapshots:  0 total
Time:       3.715 s
Ran all test suites matching /assignment.controller.early.test/i.
```

File		Statements		Branches		Functions		Lines	
assignment.controller.js	<div><div></div></div>	96.49%	55/57	92.85%	13/14	100%	6/6	96.49%	55/57

[6] Announcement Controller

1) Create Announcement

```
Test Suites: 2 passed, 2 total
Tests:       4 passed, 4 total
Snapshots:   0 total
Time:        2.222 s
Ran all test suites matching /createAnnouncement.early.test.js/i.
```

2) Get Announcement

```
Test Suites: 2 passed, 2 total
Tests:       3 passed, 3 total
Snapshots:   0 total
Time:        1.694 s
Ran all test suites matching /getAnnouncement.early.test.js/i.
```

3) Update Announcement

```
Tests:       5 passed, 5 total
Snapshots:   0 total
Time:        2.155 s
Ran all test suites matching /updateAnnouncement.early.test.js/i.
```

4) Delete Announcement

```
Tests:       3 passed, 3 total
Snapshots:   0 total
Time:        1.868 s
Ran all test suites matching /deleteAnnouncement.1.early.test.js/i.
```

For announcement controller file :

```
Tests:       15 passed, 15 total
Snapshots:   0 total
Time:        3.17 s
Ran all test suites matching /announcement.controller.early.test/i.
```

File	Statements	Branches	Functions	Lines
announcement.controller.js	91.83% 45/49	87.5% 14/16	100% 4/4	91.83% 45/49

[7] Material Controller

1) Insert Material

```
Tests:      4 passed, 4 total
Snapshots:  0 total
Time:       1.704 s
Ran all test suites matching /insertMaterial.early.test.js/i.
```

2) Get Material

```
Tests:      3 passed, 3 total
Snapshots:  0 total
Time:       1.699 s
Ran all test suites matching /getMaterial.early.test.js/i.
```

3) Update Material

```
Tests:      2 failed, 2 passed, 4 total
Snapshots:  0 total
Time:       2.072 s
Ran all test suites matching /updateMaterial.early.test.js/i.
```

4) Delete Material

```
Tests:      3 passed, 3 total
Snapshots:  0 total
Time:       1.701 s
Ran all test suites matching /deleteMaterial.early.test.js/i.
```

For material controller file :

```
Tests:      2 failed, 12 passed, 14 total
Snapshots:  0 total
Time:       3.871 s
Ran all test suites matching /material.controller.early.test/i.
```

File	Statements	Branches	Functions	Lines
material.controller.js	100%	28/28	100%	2/2

[8] Resource Controller

1) Insert Resource

```
PASS src/controller/resource.controller.early.test/insertResource.early.test.js
insertResource() insertResource method
  Happy Paths
    ✓ should insert a resource successfully when lesson exists (5 ms)
  Edge Cases
    ✓ should return 404 if lesson is not found (5 ms)
    ✓ should return 400 if resource saving fails (1 ms)
    ✓ should handle unexpected errors gracefully (1 ms)

Test Suites: 1 passed, 1 total
Tests:       4 passed, 4 total
Snapshots:   0 total
Time:        1.602 s
Ran all test suites matching /insertResource.early.test.js/i.
```

2) Update Resource

```
PASS src/controller/resource.controller.early.test/updateResource.early.test.js
updateResource() updateResource method
  Happy Paths
    ✓ should update a resource successfully and return the updated resource (4 ms)
  Edge Cases
    ✓ should return a 400 error if the resource ID is invalid (1 ms)
    ✓ should return a 400 error if validation fails (1 ms)
    ✓ should handle unexpected errors gracefully (1 ms)

Test Suites: 1 passed, 1 total
Tests:       4 passed, 4 total
Snapshots:   0 total
Time:        1.566 s
```

3) Get Resource

```
PASS src/controller/resource.controller.early.test/getResources.early.test.js
getResources() getResources method
  ✓ should return resources for a valid lesson (38 ms)
  ✓ should return 404 if lesson is not found (2 ms)
  ✓ should return 400 for invalid lesson ID format (1 ms)
  ✓ should return 500 for general errors

Test Suites: 1 passed, 1 total
Tests:       4 passed, 4 total
Snapshots:   0 total
Time:        1.563 s
Ran all test suites matching /getResources.early.test.js/i.
```

4) Delete Resource

```
Tests:       1 failed, 2 passed, 3 total
Snapshots:   0 total
Time:        1.616 s, estimated 2 s
Ran all test suites matching /deleteResource.early.test.js/i.
```

For Resource Controller File

```
Tests:      1 failed, 14 passed, 15 total
Snapshots:  0 total
Time:       2.53 s
Ran all test suites matching /resource.controller.early.test/i.
```

File ▾		Statements ▾		Branches ▾		Functions ▾		Lines ▾	
resource.controller.js	<div><div></div></div>	100%	40/40	100%	8/8	100%	6/6	100%	39/39