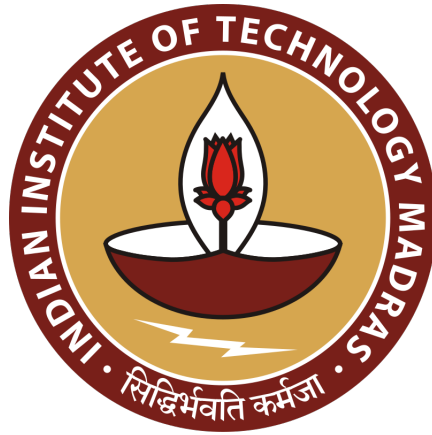# Indian Institute of Technology, Madras

Software Engineering Project

Milestone 5 Submission

A Learning-Path Recommendation System for IIT(M) B.S. Degree

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Contents

1   Test Cases for API Endpoints

1.1   A pic of implemented test case

```
1   import pytest
2   import requests, json
3
4   BASE_URL = "http://localhost/api/v1"
5   token = 'eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJzdWIiOiIxMjM0NTY3ODkwIiwibmFtZSI6IkpvaG4gRG9lIiwiaWF0IjoxNTE2MjM5MDIyfQ.SflKxwRJSMeKKF2QT4f
6
7   # Test Case 1
8   def test_profile_endpoint_correct_info_present():
9       response = requests.get(f"{BASE_URL}/profile", headers={'Accept': 'application/json', 'Authorization': f"Bearer {token}"})
10      assert response.status_code == 200
11
12  # Test Case 2
13  def test_profile_endpoint_auth_token_missing():
14      response = requests.get(f"{BASE_URL}/profile", headers={'Accept': 'application/json'})
15      assert response.status_code == 401
16
17  # Test Case 3
18  def test_profile_endpoint_all_details_correct_and_present():
19      input_dict={"pic": "ABCD.png","maximum_courses_in_a_term": 3,"current_degree_level": "diploma","dp_or_ds": "both","current_courses": ["B
20      data = json.dumps(input_dict)
21      response = requests.post(f"{BASE_URL}/profile", data=data, headers={'Accept': 'application/json', 'Authorization': f"Bearer {token}"})
22      assert response.status_code == 201
```

Figure 1: Some implemented test cases using Python

Test Case 1	
Endpoint	http://localhost/api/v1/profile
Category	Profile
Test Case Description	Auth token missing
Request Type	GET
Expected Response Code	401
Actual Response Code	401
Output Status	As Expected
Result	PASSED

Input Request

```
1   curl --request GET \
2     --url http://localhost/api/v1/profile \
3     --header 'Accept: application/json'
```

Output Response: application/json

```
1   {
2     "message": "Bad data sent",
3     "status": "error"
4   }
```

Test Case 2

Endpoint	http://localhost/api/v1/profile
Category	Profile
Test Case Description	All information required correct and present
Request Type	GET
Expected Response Code	200
Actual Response Code	200
Output Status	As Expected
Result	PASSED

Input Request

```
1  curl --request GET \
2  --url http://localhost/api/v1/profile \
3  --header 'Accept: application/json' \
4  --header 'Authorization: Bearer ***'
```

Output Response: application/json

```
1  {
2      "email": "abc@xyz.com",
3      "role": "student",
4      "bio": {
5        "maximum_courses_in_a_term": 3,
6        "current_degree_level": "foundation",
7        "dp_or_ds": "ds",
8        "current_courses": [
9          "BSHS1001"
10       ],
11       "completed_courses": [
12         {
13           "id": "        BSMA1001",
14           "marks": 70
15         }
16       ]
17     }
18  }
```

Test Case 3

Endpoint   http://localhost/api/v1/profile
Category   Profile
Test Case Description   All details required match and present

Request Type   POST
Expected Response Code   201
Actual Response Code   201

Output Status   As Expected
Result   PASSED

Input Request

```
curl --request POST \
  --url http://localhost/api/v1/profile \
  --header 'Accept: application/json' \
  --header 'Authorization: Bearer ***' \
  --header 'Content-Type: application/json' \
  --data '{
  "pic": "ABCD.png",
  "maximum_courses_in_a_term": 3,
  "current_degree_level": "diploma",
  "dp_or_ds": "both",
  "current_courses": [
    "BSHS1001"
  ],
  "completed_courses": [
    {
      "id": "BSC2001",
      "marks": 87.9
    }
  ]
}'
```

Output Response: application/json

```
{
  "message": "created",
  "status": "success"
}
```

Test Case 4

Endpoint	http://localhost/api/v1/profile
Category	Profile
Test Case Description	User details do not exist
Request Type	GET
Expected Response Code	404
Actual Response Code	404
Output Status	As Expected
Result	PASSED

Input Request

```
1  curl --request GET \
2    --url http://localhost/api/v1/profile \
3    --header 'Accept: application/json' \
4    --header 'Authorization: Bearer ***'
```

Output Response: application/json

```
1  404
2  {
3    "message": "The requested resource was not found on this server",
4    "status": "error"
5  }
```

Test Case 5

Endpoint	http://localhost/api/v1/profile
Category	Profile
Test Case Description	Wrong type of user logged in
Request Type	GET
Expected Response Code	403
Actual Response Code	403
Output Status	As Expected
Result	PASSED

Input Request

```
1  curl --request GET \
2    --url http://localhost/api/v1/profile \
3    --header 'Accept: application/json' \
4    --header 'Authorization: Bearer ***'
```

Output Response: application/json

```
1  {
2    "message": "Access Denied",
3    "status": "error"
4  }
```

Test Case 6

Endpoint   http://localhost/api/v1/profile
Category   Profile
Test Case Description   Auth token missing

Request Type   POST
Expected Response Code   401
Actual Response Code   401

Output Status   As Expected
Result   PASSED

Input Request

```
curl --request POST \
  --url http://localhost/api/v1/profile \
  --header 'Accept: application/json' \
  --header 'Content-Type: application/json' \
  --data '{
  "pic": "ABCDE.png",
  "maximum_courses_in_a_term": 4,
  "current_degree_level": "diploma",
  "dp_or_ds": "both",
  "current_courses": [
    "BSHS1001"
  ],
  "completed_courses": [
    {
      "id": "BSC2001",
      "marks": 92
    }
  ]
}'
```

Output Response: application/json

```
{
  "message": "Bad data sent",
  "status": "error"
}
```

Test Case 7

Endpoint	http://localhost/api/v1/profile
Category	Profile
Test Case Description	Wrong type of user logged in
Request Type	POST
Expected Response Code	403
Actual Response Code	403
Output Status	As Expected
Result	PASSED

Input Request

```
curl --request POST \
  --url http://localhost/api/v1/profile \
  --header 'Accept: application/json' \
  --header 'Authorization: Bearer ***' \
  --header 'Content-Type: application/json' \
  --data '{
  "pic": "ABCD.png",
  "maximum_courses_in_a_term": 4,
  "current_degree_level": "diploma",
  "dp_or_ds": "both",
  "current_courses": [
    "BSHS1001"
  ],
  "completed_courses": [
    {
      "id": "BSC2001",
      "marks": 90
    }
  ]
}'
```

Output Response: application/json

```
{
  "message": "Access Denied",
  "status": "error"
}
```

Test Case 8

Endpoint   http://localhost/api/v1/profile
Category   Profile
Test Case Description   User Auth does not exist

Request Type   POST
Expected Response Code   404
Actual Response Code   404

Output Status   As Expected
Result   PASSED

Input Request

```
1  curl --request POST \
2    --url http://localhost/api/v1/profile \
3    --header 'Accept: application/json' \
4    --header 'Authorization: Bearer ***' \
5    --header 'Content-Type: application/json' \
6    --data '{
7    "pic": "ABCDE.png",
8    "maximum_courses_in_a_term": 2,
9    "current_degree_level": "diploma",
10   "dp_or_ds": "both",
11   "current_courses": [
12     "BSHS1001"
13   ],
14   "completed_courses": [
15     {
16       "id": "BSC2001",
17       "marks": 90
18     }
19   ]
20  }'
```

Output Response: application/json

```
1  {
2    "message": "The requested resource was not found on this server",
3    "status": "error"
4  }
```

Test Case 9

Endpoint	http://localhost/api/v1/profile
Category	Profile

Test Case Description   Course code uploaded in the 'current_course' field does not exist in database

Request Type	POST
Expected Response Code	400
Actual Response Code	400
Output Status	As Expected
Result	PASSED

Input Request

```
curl --request POST \
  --url http://localhost/api/v1/profile \
  --header 'Accept: application/json' \
  --header 'Authorization: Bearer ***' \
  --header 'Content-Type: application/json' \
  --data '{
  "pic": "ABCDE.png",
  "maximum_courses_in_a_term": 2,
  "current_degree_level": "diploma",
  "dp_or_ds": "both",
  "current_courses": [
    "BSHS1004"
  ],
  "completed_courses": [
    {
      "id": "BSC2001",
      "marks": 90
    }
  ]
}'
```

Output Response: application/json

```
{
  "message": "Bad Request sent",
  "status": "error"
}
```

Test Case 10

Endpoint   http://localhost/api/v1/profile
Category   Profile
Test Case Description   Course code uploaded in the 'completed_course' field does not
exist in database

Request Type   POST
Expected Response Code   400
Actual Response Code   400

Output Status   As Expected
Result   PASSED

Input Request

```
1  curl --request POST \
2    --url http://localhost/api/v1/profile \
3    --header 'Accept: application/json' \
4    --header 'Authorization: Bearer ***' \
5    --header 'Content-Type: application/json' \
6    --data '{
7    "pic": "ABCD.png",
8    "maximum_courses_in_a_term": 3,
9    "current_degree_level": "diploma",
10   "dp_or_ds": "both",
11   "current_courses": [
12     "BSHS1001"
13   ],
14   "completed_courses": [
15     {
16       "id": "BSC2006",
17       "marks": 87.9
18     }
19   ]
20  }'
```

Output Response: application/json

```
1  {
2    "message": "Bad Request sent",
3    "status": "error"
4  }
```

Test Case 11

Endpoint   http://localhost/api/v1/profile
Category   Profile
Test Case Description   value in the 'maximum_courses_in_a_term' field less than 2

Request Type   POST
Expected Response Code   400
Actual Response Code   400

Output Status   As Expected
Result   PASSED

Input Request

```
1  curl --request POST \
2    --url http://localhost/api/v1/profile \
3    --header 'Accept: application/json' \
4    --header 'Authorization: Bearer ***' \
5    --header 'Content-Type: application/json' \
6    --data '{
7    "pic": "ABCD.png",
8    "maximum_courses_in_a_term": 1,
9    "current_degree_level": "diploma",
10   "dp_or_ds": "both",
11   "current_courses": [
12     "BSHS1001"
13   ],
14   "completed_courses": [
15     {
16       "id": "BSC2001",
17       "marks": 87.9
18     }
19   ]
20 }'
```

Output Response: application/json

```
1  {
2    "message": "Bad Request sent",
3    "status": "error"
4  }
```

Test Case 12

Endpoint   http://localhost/api/v1/profile
Category   Profile
Test Case Description   value in the 'maximum_courses_in_a_term' field greater than 4

Request Type   POST
Expected Response Code   400
Actual Response Code   400

Output Status   As Expected
Result   PASSED

Input Request

```
curl --request POST \
  --url http://localhost/api/v1/profile \
  --header 'Accept: application/json' \
  --header 'Authorization: Bearer ***' \
  --header 'Content-Type: application/json' \
  --data '{
  "pic": "ABCD.png",
  "maximum_courses_in_a_term": 5,
  "current_degree_level": "diploma",
  "dp_or_ds": "both",
  "current_courses": [
    "BSHS1001"
  ],
  "completed_courses": [
    {
      "id": "BSC2001",
      "marks": 87.9
    }
  ]
}'
```

Output Response: application/json

```
{
  "message": "Bad Request sent",
  "status": "error"
}
```

Test Case 13

Endpoint   http://localhost/api/v1/profile
Category   Profile
Test Case Description   Invalid value in 'current_degree_level'

Request Type   POST
Expected Response Code   400
Actual Response Code   400

Output Status   As Expected
Result   PASSED

Input Request

```
1  curl --request POST \
2    --url http://localhost/api/v1/profile \
3    --header 'Accept: application/json' \
4    --header 'Authorization: Bearer ***' \
5    --header 'Content-Type: application/json' \
6    --data '{
7    "pic": "ABCD.png",
8    "maximum_courses_in_a_term": 3,
9    "current_degree_level": "graduated",
10   "dp_or_ds": "both",
11   "current_courses": [
12     "BSHS1001"
13   ],
14   "completed_courses": [
15     {
16       "id": "BSC2001",
17       "marks": 87.9
18     }
19   ]
20 }'
```

Output Response: application/json

```
1  {
2    "message": "Bad Request sent",
3    "status": "error"
4  }
```

Test Case 14

Endpoint   http://localhost/api/v1/profile
Category   Profile
Test Case Description   Invalid value in 'dp_or_ds'

Request Type   POST
Expected Response Code   400
Actual Response Code   400

Output Status   As Expected
Result   PASSED

Input Request

```
curl --request POST \
  --url http://localhost/api/v1/profile \
  --header 'Accept: application/json' \
  --header 'Authorization: Bearer ***' \
  --header 'Content-Type: application/json' \
  --data '{
  "pic": "ABCD.png",
  "maximum_courses_in_a_term": 3,
  "current_degree_level": "diploma",
  "dp_or_ds": "dk",
  "current_courses": [
    "BSHS1001"
  ],
  "completed_courses": [
    {
      "id": "BSC2001",
      "marks": 87.9
    }
  ]
}'
```

Output Response: application/json

```
{
  "message": "Bad Request sent",
  "status": "error"
}
```

Test Case 15

Endpoint	http://localhost/api/v1/profile
Category	Profile
Test Case Description	Course uploaded in the 'completed_course' field has marks less than 0

Request Type	POST
Expected Response Code	400
Actual Response Code	400

Output Status	As Expected
Result	PASSED

Input Request

```
curl --request POST \
  --url http://localhost/api/v1/profile \
  --header 'Accept: application/json' \
  --header 'Authorization: Bearer ***' \
  --header 'Content-Type: application/json' \
  --data '{
  "pic": "ABCD.png",
  "maximum_courses_in_a_term": 3,
  "current_degree_level": "diploma",
  "dp_or_ds": "both",
  "current_courses": [
    "BSHS1001"
  ],
  "completed_courses": [
    {
      "id": "BSC2001",
      "marks": -9
    }
  ]
}'
```

Output Response: application/json

```
{
  "message": "Bad Request sent",
  "status": "error"
}
```

Test Case 16

Endpoint   http://localhost/api/v1/profile
Category   Profile
Test Case Description   Course uploaded in the 'completed_course' field has marks more than 100

Request Type   POST
Expected Response Code   400
Actual Response Code   400

Output Status   As Expected
Result   PASSED

Input Request

```
1   curl --request POST \
2     --url http://localhost/api/v1/profile \
3     --header 'Accept: application/json' \
4     --header 'Authorization: Bearer ***' \
5     --header 'Content-Type: application/json' \
6     --data '{
7     "pic": "ABCD.png",
8     "maximum_courses_in_a_term": 3,
9     "current_degree_level": "diploma",
10    "dp_or_ds": "both",
11    "current_courses": [
12      "BSHS1001"
13    ],
14    "completed_courses": [
15      {
16        "id": "BSC2001",
17        "marks": 130
18      }
19    ]
20  }'
```

Output Response: application/json

```
1   {
2     "message": "Bad Request sent",
3     "status": "error"
4   }
```

Test Case 17

Endpoint	http://localhost/api/v1/profile
Category	Profile
Test Case Description	Course uploaded in the 'completed_course' field has marks missing
Request Type	POST
Expected Response Code	400
Actual Response Code	400
Output Status	As Expected
Result	PASSED

Input Request

```
curl --request POST \
  --url http://localhost/api/v1/profile \
  --header 'Accept: application/json' \
  --header 'Authorization: Bearer ***' \
  --header 'Content-Type: application/json' \
  --data '{
  "pic": "ABCD.png",
  "maximum_courses_in_a_term": 3,
  "current_degree_level": "diploma",
  "dp_or_ds": "both",
  "current_courses": [
    "BSHS1001"
  ],
  "completed_courses": [
    {
      "id": "BSC2001"
    }
  ]
}'
```

Output Response: application/json

```
{
  "message": "Bad Request sent",
  "status": "error"
}
```

Test Case 18

Endpoint	http://localhost/api/v1/profile
Category	Profile
Test Case Description	All details required match and present
Request Type	PATCH
Expected Response Code	202
Actual Response Code	202
Output Status	As Expected
Result	PASSED

Input Request

```
curl --request POST \
  --url http://localhost/api/v1/profile \
  --header 'Accept: application/json' \
  --header 'Authorization: Bearer ***' \
  --header 'Content-Type: application/json' \
  --data '{
  "maximum_courses_in_a_term": 4,
  "current_degree_level": "diploma",
  "dp_or_ds": "both",
  "current_courses": [
    "BSHS1001"
  ],
  "completed_courses": [
    {
      "id": "BSC2001",
      "marks": 99
    }
  ]
}'
```

Output Response: application/json

```
{
  "message": "accepted",
  "status": "success"
}
```

Test Case 19

Endpoint   http://localhost/api/v1/profile
Category   Profile
Test Case Description   Auth token missing

Request Type   PATCH
Expected Response Code   401
Actual Response Code   401

Output Status   As Expected
Result   PASSED

Input Request

```
1   curl --request POST \
2     --url http://localhost/api/v1/profile \
3     --header 'Accept: application/json' \
4     --header 'Content-Type: application/json' \
5     --data '{
6     "maximum_courses_in_a_term": 4,
7     "current_degree_level": "diploma",
8     "dp_or_ds": "both",
9     "current_courses": [
10      "BSHS1001"
11    ],
12    "completed_courses": [
13      {
14        "id": "BSC2001",
15        "marks": 99
16      }
17    ]
18  }'
```

Output Response: application/json

```
1   {
2     "message": "Bad data sent",
3     "status": "error"
4   }
```

Test Case 20

Endpoint   http://localhost/api/v1/profile
Category   Profile
Test Case Description   Wrong type of user logged in

Request Type   PATCH
Expected Response Code   403
Actual Response Code   403

Output Status   As Expected
Result   PASSED

Input Request

```
1  curl --request POST \
2    --url http://localhost/api/v1/profile \
3    --header 'Accept: application/json' \
4    --header 'Authorization: Bearer ***' \
5    --header 'Content-Type: application/json' \
6    --data '{
7    "maximum_courses_in_a_term": 4,
8    "current_degree_level": "diploma",
9    "dp_or_ds": "both",
10   "current_courses": [
11     "BSHS1001"
12   ],
13   "completed_courses": [
14     {
15       "id": "BSC2001",
16       "marks": 99
17     }
18   ]
19 }'
```

Output Response: application/json

```
1  {
2    "message": "Access Denied",
3    "status": "error"
4  }
```

Test Case 21

Endpoint   http://localhost/api/v1/profile
Category   Profile
Test Case Description   User Auth does not exist

Request Type   PATCH
Expected Response Code   404
Actual Response Code   404

Output Status   As Expected
Result   PASSED

Input Request

```
1   curl --request POST \
2     --url http://localhost/api/v1/profile \
3     --header 'Accept: application/json' \
4     --header 'Authorization: Bearer ***' \
5     --header 'Content-Type: application/json' \
6     --data '{
7     "maximum_courses_in_a_term": 4,
8     "current_degree_level": "diploma",
9     "dp_or_ds": "both",
10    "current_courses": [
11      "BSHS1001"
12    ],
13    "completed_courses": [
14      {
15        "id": "BSC2001",
16        "marks": 99
17      }
18    ]
19  }'
```

Output Response: application/json

```
1   {
2     "message": "The requested resource was not found on this server",
3     "status": "error"
4   }
```

Test Case 22

Endpoint	http://localhost/api/v1/admins
Category	Admin
Test Case Description	All required information correct and present

Request Type	GET
Expected Response Code	200
Actual Response Code	200

Output Status	As Expected
Result	PASSED

Input Request

```
curl --request GET \
  --url http://localhost/api/v1/admins \
  --header 'Accept: application/json' \
  --header 'Authorization: Bearer ***'
```

Output Response: application/json

```
[
  {
    "name": "ABCD",
    "email": "ABCD@EFGH.com",
    "role": "admin",
    "created_at": "2012-04-23T18:25:43.511Z"
  },
  {
    "name": "IJKL",
    "email": "IJKL@EFGH.com",
    "role": "im",
    "created_at": "2012-04-23T18:25:43.511Z"
  }
]
```

Test Case 23

Endpoint	http://localhost/api/v1/admins
Category	Admin
Test Case Description	Auth token absent or invalid
Request Type	GET
Expected Response Code	401
Actual Response Code	401
Output Status	As Expected
Result	PASSED

Input Request

```
1  curl --request GET \
2    --url http://localhost/api/v1/admins \
3    --header 'Accept: application/json'
```

Output Response: application/json

```
1  {
2    "message": "Bad data sent",
3    "status": "error"
4  }
```

Test Case 24

Endpoint	http://localhost/api/v1/admins
Category	Admin
Test Case Description	Auth token for wrong user type used
Request Type	GET
Expected Response Code	403
Actual Response Code	403
Output Status	As Expected
Result	PASSED

Input Request

```
1  curl --request GET \
2    --url http://localhost/api/v1/admins \
3    --header 'Accept: application/json' \
4    --header 'Authorization: Bearer ***'
```

Output Response: application/json

```
1  {
2    "message": "Access Denied",
3    "status": "error"
4  }
```

Test Case 25

Endpoint	http://localhost/api/v1/admins
Category	Admin
Test Case Description	All information present and correct
Request Type	POST
Expected Response Code	201
Actual Response Code	201
Output Status	As Expected
Result	PASSED

Input Request

```
curl --request POST \
  --url http://localhost/api/v1/admins \
  --header 'Accept: application/json' \
  --header 'Authorization: Bearer ***' \
  --header 'Content-Type: application/json' \
  --data '{
  "email": "IJKL@EFGH.com",
  "role": "im"
}'
```

Output Response: application/json

```
{
  "message": "created",
  "status": "success"
}
```

Test Case 26

Endpoint	http://localhost/api/v1/admins
Category	Admin
Test Case Description	Syntax error in request
Request Type	POST
Expected Response Code	400
Actual Response Code	400
Output Status	As Expected
Result	PASSED

Input Request

```
1  curl --request POST \
2    --url http://localhost/api/v1/admins \
3    --header 'Accept: application/json' \
4    --header 'Authorization: Bearer ***' \
5    --header 'Content-Type: application/json' \
6    --data '{
7    "emal": "IJKL@EFGH.com",
8    "role": "im"
9  }'
```

Output Response: application/json

```
1  {
2    "message": "Bad Request sent",
3    "status": "error"
4  }
```

Test Case 27

Endpoint	http://localhost/api/v1/admins
Category	Admin
Test Case Description	Auth token missing or invalid
Request Type	POST
Expected Response Code	401
Actual Response Code	401
Output Status	As Expected
Result	PASSED

Input Request

```
curl --request POST \
  --url http://localhost/api/v1/admins \
  --header 'Accept: application/json' \
  --header 'Content-Type: application/json' \
  --data '{
  "email": "IJKL@EFGH.com",
  "role": "im"
}'
```

Output Response: application/json

```
{
  "message": "Bad data sent",
  "status": "error"
}
```

Test Case 28

Endpoint	http://localhost/api/v1/admins
Category	Admin
Test Case Description	Auth token for worng user used
Request Type	POST
Expected Response Code	403
Actual Response Code	403
Output Status	As Expected
Result	PASSED

Input Request

```
curl --request POST \
  --url http://localhost/api/v1/admins \
  --header 'Accept: application/json' \
  --header 'Authorization: Bearer ***' \
  --header 'Content-Type: application/json' \
  --data '{
  "email": "IJKL@EFGH.com",
  "role": "im"
}'
```

Output Response: application/json

```
{
  "message": "Access Denied",
  "status": "error"
}
```

Test Case 29

Endpoint	http://localhost/api/v1/admins
Category	Admin
Test Case Description	Email in request not in database
Request Type	POST
Expected Response Code	400
Actual Response Code	400
Output Status	As Expected
Result	PASSED

Input Request

```
1  curl --request POST \
2    --url http://localhost/api/v1/admins \
3    --header 'Accept: application/json' \
4    --header 'Authorization: Bearer ***' \
5    --header 'Content-Type: application/json' \
6    --data '{
7    "email": "abc@def.com",
8    "role": "im"
9  }'
```

Output Response: application/json

```
1  {
2    "message": "Bad Request sent",
3    "status": "error"
4  }
```

Test Case 30

Endpoint	http://localhost/api/v1/admins
Category	Admin
Test Case Description	Email in request smaller than 3 characters
Request Type	POST
Expected Response Code	400
Actual Response Code	400
Output Status	As Expected
Result	PASSED

Input Request

```
1  curl --request POST \
2    --url http://localhost/api/v1/admins \
3    --header 'Accept: application/json' \
4    --header 'Authorization: Bearer ***' \
5    --header 'Content-Type: application/json' \
6    --data '{
7    "email": "a@b",
8    "role": "im"
9  }'
```

Output Response: application/json

```
1  {
2    "message": "Bad Request sent",
3    "status": "error"
4  }
```

Test Case 31

Endpoint	http://localhost/api/v1/admins
Category	Admin
Test Case Description	role in request invalid
Request Type	POST
Expected Response Code	400
Actual Response Code	400
Output Status	As Expected
Result	PASSED

Input Request

```
1  curl --request POST \
2    --url http://localhost/api/v1/admins \
3    --header 'Accept: application/json' \
4    --header 'Authorization: Bearer ***' \
5    --header 'Content-Type: application/json' \
6    --data '{
7    "email": "IJKL@EFGH.com",
8    "role": "stu"
9  }'
```

Output Response: application/json

```
1  {
2    "message": "Bad Request sent",
3    "status": "error"
4  }
```

Test Case 32

Endpoint	http://localhost/api/v1/admins
Category	Admin
Test Case Description	role or email field in request missing
Request Type	POST
Expected Response Code	400
Actual Response Code	400
Output Status	As Expected
Result	PASSED

Input Request

```
1  curl --request POST \
2    --url http://localhost/api/v1/admins \
3    --header 'Accept: application/json' \
4    --header 'Authorization: Bearer ***' \
5    --header 'Content-Type: application/json' \
6    --data '{
7    "email": "IJKL@EFGH.com"
8  }'
```

Output Response: application/json

```
1  {
2    "message": "Bad Request sent",
3    "status": "error"
4  }
```

Test Case 32

Endpoint   http://localhost/api/v1/admins
Category   Admin
Test Case Description   All fields present and correct

Request Type   PATCH
Expected Response Code   202
Actual Response Code   202

Output Status   As Expected
Result   PASSED

Input Request

```
1  curl --request PATCH \
2    --url http://localhost/api/v1/admins \
3    --header 'Accept: application/json' \
4    --header 'Authorization: Bearer ***' \
5    --header 'Content-Type: application/json' \
6    --data '{
7    "email": "IJKL@EFGH.com",
8    "role": "im"
9  }'
```

Output Response: application/json

```
1  {
2    "message": "accepted",
3    "status": "success"
4  }
```

Test Case 33

Endpoint	http://localhost/api/v1/admins
Category	Admin
Test Case Description	Syntax error in request
Request Type	PATCH
Expected Response Code	400
Actual Response Code	400
Output Status	As Expected
Result	PASSED

Input Request

```
curl --request PATCH \
  --url http://localhost/api/v1/admins \
  --header 'Accept: application/json' \
  --header 'Authorization: Bearer ***' \
  --header 'Content-Type: application/json' \
  --data '{
  "eml": "IJKL@EFGH.com",
  "role": "im"
}'
```

Output Response: application/json

```
{
  "message": "Bad Request sent",
  "status": "error"
}
```

Test Case 34

Endpoint	http://localhost/api/v1/admins
Category	Admin
Test Case Description	Auth token missing or invalid
Request Type	PATCH
Expected Response Code	401
Actual Response Code	401
Output Status	As Expected
Result	PASSED

Input Request

```
curl --request PATCH \
  --url http://localhost/api/v1/admins \
  --header 'Accept: application/json' \
  --header 'Content-Type: application/json' \
  --data '{
  "email": "IJKL@EFGH.com",
  "role": "im"
}'
```

Output Response: application/json

```
{
  "message": "Bad data sent",
  "status": "error"
}
```

Test Case 35

Endpoint	http://localhost/api/v1/admins
Category	Admin
Test Case Description	Auth token for wrong type of user used
Request Type	PATCH
Expected Response Code	403
Actual Response Code	403
Output Status	As Expected
Result	PASSED

Input Request

```
curl --request PATCH \
  --url http://localhost/api/v1/admins \
  --header 'Accept: application/json' \
  --header 'Authorization: Bearer ***' \
  --header 'Content-Type: application/json' \
  --data '{
  "email": "IJKL@EFGH.com",
  "role": "im"
}'
```

Output Response: application/json

```
{
  "message": "Access Denied",
  "status": "error"
}
```

Test Case 36

Endpoint	http://localhost/api/v1/admins
Category	Admin
Test Case Description	email for which data is being patched does not exist
Request Type	PATCH
Expected Response Code	400
Actual Response Code	400
Output Status	As Expected
Result	PASSED

Input Request

```
curl --request PATCH \
  --url http://localhost/api/v1/admins \
  --header 'Accept: application/json' \
  --header 'Authorization: Bearer ***' \
  --header 'Content-Type: application/json' \
  --data '{
  "email": "abc@def.com",
  "role": "im"
}'
```

Output Response: application/json

```
{
  "message": "Bad Request sent",
  "status": "error"
}
```

Test Case 37

Endpoint	http://localhost/api/v1/admins
Category	Admin
Test Case Description	role in request invalid
Request Type	PATCH
Expected Response Code	400
Actual Response Code	400
Output Status	As Expected
Result	PASSED

Input Request

```
curl --request PATCH \
  --url http://localhost/api/v1/admins \
  --header 'Accept: application/json' \
  --header 'Authorization: Bearer ***' \
  --header 'Content-Type: application/json' \
  --data '{
  "email": "IJKL@EFGH.com",
  "role": "im"
}'
```

Output Response: application/json

```
{
  "message": "Bad Request sent",
  "status": "error"
}
```

Test Case 38

Endpoint	http://localhost/api/v1/admins
Category	Admin
Test Case Description	role or email field in request missing
Request Type	PATCH
Expected Response Code	400
Actual Response Code	400
Output Status	As Expected
Result	PASSED

Input Request

```
curl --request PATCH \
  --url http://localhost/api/v1/admins \
  --header 'Accept: application/json' \
  --header 'Authorization: Bearer ***' \
  --header 'Content-Type: application/json' \
  --data '{
  "email": "IJKL@EFGH.com",
}'
```

Output Response: application/json

```
{
  "message": "Bad Request sent",
  "status": "error"
}
```

Test Case 39

Endpoint	http://localhost/api/v1/admins
Category	Admin
Test Case Description	All fields present and correct
Request Type	DELETE
Expected Response Code	200
Actual Response Code	200
Output Status	As Expected
Result	PASSED

Input Request

```
curl --request DELETE \
  --url 'http://localhost/api/v1/admins?email=IJKL%40EFGH.com' \
  --header 'Accept: application/json' \
  --header 'Authorization: Bearer ***'
```

Test Case 40

Endpoint	http://localhost/api/v1/admins
Category	Admin
Test Case Description	Syntax error in request
Request Type	DELETE
Expected Response Code	400
Actual Response Code	400
Output Status	As Expected
Result	PASSED

Input Request

```
curl --request DELETE \
  --url 'http://localhost/api/v1/admins?emai=IJKL%40EFGH.com' \
  --header 'Accept: application/json' \
  --header 'Authorization: Bearer ***'
```

Output Response: application/json

```
{
  "message": "Bad Request sent",
  "status": "error"
}
```

Test Case 41

Endpoint	http://localhost/api/v1/admins
Category	Admin
Test Case Description	Auth token missing or invalid
Request Type	DELETE
Expected Response Code	401
Actual Response Code	401
Output Status	As Expected
Result	PASSED

Input Request

```
curl --request DELETE \
  --url 'http://localhost/api/v1/admins?email=IJKL%40EFGH.com' \
  --header 'Accept: application/json'
```

Output Response: application/json

```
{
  "message": "Bad data sent",
  "status": "error"
}
```

Test Case 42

Endpoint	http://localhost/api/v1/admins
Category	Admin
Test Case Description	Auth token for wrong type of user used
Request Type	DELETE
Expected Response Code	403
Actual Response Code	403
Output Status	As Expected
Result	PASSED

Input Request

```
1  curl --request DELETE \
2    --url 'http://localhost/api/v1/admins?email=IJKL%40EFGH.com' \
3    --header 'Accept: application/json' \
4    --header 'Authorization: Bearer ***'
```

Output Response: application/json

```
1  {
2    "message": "Access Denied",
3    "status": "error"
4  }
```

Test Case 43

Endpoint	http://localhost/api/v1/admins
Category	Admin
Test Case Description	email for which data is being deleted does not exist
Request Type	DELETE
Expected Response Code	400
Actual Response Code	400
Output Status	As Expected
Result	PASSED

Input Request

```
1  curl --request DELETE \
2    --url 'http://localhost/api/v1/admins?email=abc%40def.com' \
3    --header 'Accept: application/json' \
4    --header 'Authorization: Bearer ***'
```

Output Response: application/json

```
1  {
2    "message": "Bad Request sent",
3    "status": "error"
4  }
```

Test Case 44

Endpoint	http://localhost/api/v1/admins
Category	Admin
Test Case Description	email field in request missing
Request Type	DELETE
Expected Response Code	400
Actual Response Code	400
Output Status	As Expected
Result	PASSED

Input Request

```
1  curl --request DELETE \
2    --url 'http://localhost/api/v1/admins' \
3    --header 'Accept: application/json' \
4    --header 'Authorization: Bearer ***'
```

Output Response: application/json

```
1  {
2    "message": "Bad Request sent",
3    "status": "error"
4  }
```

Test Case 45

Endpoint	http://localhost/api/v1/admins
Category	Admin
Test Case Description	email field in request has less than 3 characters
Request Type	DELETE
Expected Response Code	400
Actual Response Code	400
Output Status	As Expected
Result	PASSED

Input Request

```
1  curl --request DELETE \
2    --url 'http://localhost/api/v1/admins?email=IJK' \
3    --header 'Accept: application/json' \
4    --header 'Authorization: Bearer ***'
```

Output Response: application/json

```
1  {
2    "message": "Bad Request sent",
3    "status": "error"
4  }
```

Test Case 46

Endpoint	http://localhost/api/v1/user/auth
Category	Users
Test Case Description	All required inputs present and valid
Request Type	POST
Expected Response Code	200
Actual Response Code	200
Output Status	As Expected
Result	PASSED

Input Request

```
curl --request POST \
  --url http://localhost/api/v1/user/auth \
  --header 'Accept: application/json' \
  --header 'Content-Type: application/json'\
  --data '{
  "email": "abc@xyz.com",
  "password": "abcdef",
}'
```

Output Response: application/json

```
{
  "auth": {
    "message": "Login successful",
    "authToken": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJzdWIiOiIxMjM0NTY3ODkwIiwil
  },
  "profile": {
    "name": "A Student",
    "email": "abc@xyz.com",
    "role": "student"
  }
}
```

Test Case 47

Endpoint   http://localhost/api/v1/user/auth
Category   Users
Test Case Description   Invalid email

Request Type   POST
Expected Response Code   400
Actual Response Code   400

Output Status   As Expected
Result   PASSED

Input Request

```
1  curl --request POST \
2    --url http://localhost/api/v1/user/auth \
3    --header 'Accept: application/json' \
4    --header 'Content-Type: application/json'\
5    --data '{
6    "email": "abc@def.com",
7    "password": "abcdef",
8  }'
```

Output Response: application/json

```
1  {
2    "message": "Bad Request sent",
3    "status": "error"
4  }
```

Test Case 48

Endpoint	http://localhost/api/v1/user/auth
Category	Users
Test Case Description	Wrong password

Request Type	POST
Expected Response Code	400
Actual Response Code	400

Output Status	As Expected
Result	PASSED

Input Request

```
curl --request POST \
  --url http://localhost/api/v1/user/auth \
  --header 'Accept: application/json' \
  --header 'Content-Type: application/json'\
  --data '{
  "email": "abc@xyz.com",
  "password": "wrong",
}'
```

Output Response: application/json

```
{
  "message": "Bad Request sent",
  "status": "error"
}
```

Test Case 49

Endpoint	http://localhost/api/v1/user/auth
Category	Users
Test Case Description	Wrong request syntax
Request Type	POST
Expected Response Code	400
Actual Response Code	400
Output Status	As Expected
Result	PASSED

Input Request

```
1  curl --request POST \
2    --url http://localhost/api/v1/user/auth \
3    --header 'Accept: application/json' \
4    --header 'Content-Type: application/json'\
5    --data '{
6    "ema": "abc@xyz.com",
7    "password": "abcdef",
8  }'
```

Output Response: application/json

```
1  {
2    "message": "Bad Request sent",
3    "status": "error"
4  }
```

Test Case 50

Endpoint	http://localhost/api/v1/user/auth/register
Category	Users
Test Case Description	All fields present and correct
Request Type	POST
Expected Response Code	201
Actual Response Code	201
Output Status	As Expected
Result	PASSED

Input Request

```
curl --request POST \
  --url http://localhost/api/v1/user/auth/register \
  --header 'Accept: application/json' \
  --header 'Content-Type: application/json' \
  --data '{
  "name": "New Student",
  "email": "new@stu.com",
  "password": "newstu"
}'
```

Output Response: application/json

```
{
  "message": "created",
  "status": "success"
}
```

Test Case 51

Endpoint	http://localhost/api/v1/user/auth/register
Category	Users
Test Case Description	Invalid request syntax
Request Type	POST
Expected Response Code	400
Actual Response Code	400
Output Status	As Expected
Result	PASSED

Input Request

```
curl --request POST \
  --url http://localhost/api/v1/user/auth/register \
  --header 'Accept: application/json' \
  --header 'Content-Type: application/json' \
  --data '{
  "n": "New Student",
  "email": "new@stu.com",
  "password": "newstu"
}'
```

Output Response: application/json

```
{
  "message": "Bad Request sent",
  "status": "error"
}
```

Test Case 52

Endpoint   http://localhost/api/v1/user/auth/register
Category   Users
Test Case Description   Email already exists in database

Request Type   POST
Expected Response Code   400
Actual Response Code   400

Output Status   As Expected
Result   PASSED

Input Request

```
1  curl --request POST \
2    --url http://localhost/api/v1/user/auth/register \
3    --header 'Accept: application/json' \
4    --header 'Content-Type: application/json' \
5    --data '{
6    "name": "New Student",
7    "email": "abc@xyz.com",
8    "password": "newstu"
9  }'
```

Output Response: application/json

```
1  {
2    "message": "Bad Request sent",
3    "status": "error"
4  }
```

Test Case 53

Endpoint	http://localhost/api/v1/user/auth/register
Category	Users
Test Case Description	Name smaller than 5 letters in request
Request Type	POST
Expected Response Code	400
Actual Response Code	400
Output Status	As Expected
Result	PASSED

Input Request

```
1  curl --request POST \
2    --url http://localhost/api/v1/user/auth/register \
3    --header 'Accept: application/json' \
4    --header 'Content-Type: application/json' \
5    --data '{
6    "name": "New",
7    "email": "new@stu.com",
8    "password": "newstu"
9  }'
```

Output Response: application/json

```
1  {
2    "message": "Bad Request sent",
3    "status": "error"
4  }
```

Test Case 54

Endpoint	http://localhost/api/v1/user/auth/register
Category	Users
Test Case Description	Name larger than 55 letters in request
Request Type	POST
Expected Response Code	400
Actual Response Code	400
Output Status	As Expected
Result	PASSED

Input Request

```
curl --request POST \
  --url http://localhost/api/v1/user/auth/register \
  --header 'Accept: application/json' \
  --header 'Content-Type: application/json' \
  --data '{
  "name": "{56_length_name}",
  "email": "new@stu.com",
  "password": "newstu"
}'
```

Output Response: application/json

```
{
  "message": "Bad Request sent",
  "status": "error"
}
```

Test Case 55

Endpoint	http://localhost/api/v1/user/auth/register
Category	Users
Test Case Description	Email larger than 55 letters in request
Request Type	POST
Expected Response Code	400
Actual Response Code	400
Output Status	As Expected
Result	PASSED

Input Request

```
curl --request POST \
  --url http://localhost/api/v1/user/auth/register \
  --header 'Accept: application/json' \
  --header 'Content-Type: application/json' \
  --data '{
  "name": "New Student",
  "email": "{56_length_mail}",
  "password": "newstu"
}'
```

Output Response: application/json

```
{
  "message": "Bad Request sent",
  "status": "error"
}
```

Test Case 56

Endpoint	http://localhost/api/v1/user/auth/register
Category	Users
Test Case Description	Password smaller than 5 letters in request
Request Type	POST
Expected Response Code	400
Actual Response Code	400
Output Status	As Expected
Result	PASSED

Input Request

```
curl --request POST \
  --url http://localhost/api/v1/user/auth/register \
  --header 'Accept: application/json' \
  --header 'Content-Type: application/json' \
  --data '{
  "name": "New Student",
  "email": "abc@xyz.com",
  "password": "n"
}'
```

Output Response: application/json

```
{
  "message": "Bad Request sent",
  "status": "error"
}
```

Test Case 56

Endpoint	http://localhost/api/v1/user/auth/register
Category	Users
Test Case Description	Password larger than 100 letters in request
Request Type	POST
Expected Response Code	400
Actual Response Code	400
Output Status	As Expected
Result	PASSED

Input Request

```
curl --request POST \
  --url http://localhost/api/v1/user/auth/register \
  --header 'Accept: application/json' \
  --header 'Content-Type: application/json' \
  --data '{
  "name": "New Student",
  "email": "abc@xyz.com",
  "password": "{pass_longer_than_101}"
}'
```

Output Response: application/json

```
{
  "message": "Bad Request sent",
  "status": "error"
}
```

Test Case 56

Endpoint	http://localhost/api/v1/user/auth/register
Category	Users
Test Case Description	Any field missing in request
Request Type	POST
Expected Response Code	400
Actual Response Code	400
Output Status	As Expected
Result	PASSED

Input Request

```
curl --request POST \
  --url http://localhost/api/v1/user/auth/register \
  --header 'Accept: application/json' \
  --header 'Content-Type: application/json' \
  --data '{
  "name": "New Student"
}'
```

Output Response: application/json

```
{
  "message": "Bad Request sent",
  "status": "error"
}
```

Test Case 57

Endpoint	http://localhost/api/v1/recommendation
Category	Recommender
Test Case Description	All inputs present and valid
Request Type	GET
Expected Response Code	200
Actual Response Code	200
Output Status	As Expected
Result	PASSED

Input Request

```
1  curl --request GET \
2    --url http://localhost/api/v1/recommedation \
3    --header 'Accept: application/json' \
4    --header 'Authorization: Bearer ***'
```

Output Response: application/json

```
1  {
2    "no_courses": 3,
3    "upcoming_term": [
4      "BSC2001",
5      "BSC2002",
6      "BSC2003"
7    ],
8    "matrix_order": [
9      "BSC2001",
10     "BSC2002",
11     "BSC2003",
12     "BSC2004",
13     "BSC2005",
14     "BSC2006",
15     "BSC2007",
16     "BSC2008"
17   ],
18   "recommendation_matrix": [
19     [
20        1,
21        0,
22        1,
23        0,
24        0,
25        0,
26        1,
27        0
28     ],
29     [
30        1,
31        0,
32        1,
33        0,
34        0,
```

Test Case 58

Endpoint	http://localhost/api/v1/recommendation
Category	Recommender
Test Case Description	Invalid or missing auth token
Request Type	GET
Expected Response Code	401
Actual Response Code	401
Output Status	As Expected
Result	PASSED

Input Request

```
1
```

Output Response: application/json

```
1  {
2      "message": "Bad data sent",
3      "status": "error"
4  }
```

Test Case 59

Endpoint	http://localhost/api/v1/recommendation
Category	Recommender
Test Case Description	Wrong type of user auth sent
Request Type	GET
Expected Response Code	403
Actual Response Code	403
Output Status	As Expected
Result	PASSED

Input Request

```
1  curl --request GET \
2    --url http://localhost/api/v1/recommedation \
3    --header 'Accept: application/json' \
4    --header 'Authorization: Bearer ***'
```

Output Response: application/json

```
1  {
2      "message": "Access Denied",
3      "status": "error"
4  }
```

Test Case 60

Endpoint	http://localhost/api/v1/courses/{id}
Category	Courses
Test Case Description	All required fields present and correct
Request Type	GET
Expected Response Code	200
Actual Response Code	200
Output Status	As Expected
Result	PASSED

Input Request

```
1  curl --request GET \
2    --url http://localhost/api/v1/course/BSC2001 \
3    --header 'Accept: application/json, application/xml, multipart/form-data' \
4    --header 'Authorization: Bearer ***'
```

Output Response: application/json

```json
1  {
2    "id": "BSC2001",
3    "name": "Course 1",
4    "description": "This is course 1",
5    "difficulty_rating": 8.92,
6    "level": "bsc",
7    "dp_or_ds": "ds",
8    "credits": 4,
9    "pre_req": [
10     "BSC2001",
11     "BSC2002"
12   ],
13   "co_req": [
14     "BSC2001",
15     "BSC2002"
16   ],
17   "availability": [
18     "Sept2022",
19     "March2002"
20   ],
21   "instructors": [
22     {
23       "name": "ABCD",
24       "email": "ABCD@efgh.com"
25     },
26     {
27       "name": "EFGH",
28       "email": "ijkl@efgh.com"
29     }
30   ]
31 }
```

Test Case 61

Endpoint	http://localhost/api/v1/courses/{id}
Category	Courses
Test Case Description	Syntax error in request
Request Type	GET
Expected Response Code	400
Actual Response Code	400
Output Status	As Expected
Result	PASSED

Input Request

```
1  curl --request GET \
2     --url http://localhost/api/v1/cours/BSC2001 \
3     --header 'Accept: application/json, application/xml, multipart/form-data' \
4     --header 'Authorization: Bearer ***'
```

Output Response: application/json

```
1  {
2     "message": "Bad Request sent",
3     "status": "error"
4  }
```

Test Case 62

Endpoint	http://localhost/api/v1/courses/{id}
Category	Courses
Test Case Description	Auth token missing or invalid
Request Type	GET
Expected Response Code	401
Actual Response Code	401
Output Status	As Expected
Result	PASSED

Input Request

```
1  curl --request GET \
2     --url http://localhost/api/v1/course/BSC2001 \
3     --header 'Accept: application/json, application/xml, multipart/form-data'
```

Output Response: application/json

```
1  {
2     "message": "Bad data sent",
3     "status": "error"
4  }
```

Test Case 63

Endpoint	http://localhost/api/v1/courses/{id}
Category	Courses
Test Case Description	Id in request does not exist
Request Type	GET
Expected Response Code	404
Actual Response Code	404
Output Status	As Expected
Result	PASSED

Input Request

```
1  curl --request GET \
2    --url http://localhost/api/v1/course/BSC20 \
3    --header 'Accept: application/json, application/xml, multipart/form-data' \
4    --header 'Authorization: Bearer ***'
```

Output Response: application/json

```
1  {
2    "message": "The requested resource was not found on this server",
3    "status": "error"
4  }
```

Test Case 64

Endpoint	http://localhost/api/v1/courses/{id}
Category	Courses
Test Case Description	All required fields present and correct
Request Type	PATCH
Expected Response Code	202
Actual Response Code	202
Output Status	As Expected
Result	PASSED

Input Request

```
curl --request PATCH \
  --url http://localhost/api/v1/course/BSC2002 \
  --header 'Accept: application/json' \
  --header 'Authorization: Bearer ***' \
  --header 'Content-Type: application/json' \
  --data '{
"name": "Course 1",
"description": "This is course 1",
"level": "Degree",
"dp_or_ds": "dp",
"credits": 3,
"pre_req": [
  "BSC2001",
  "BSC2002"
],
"co_req": [
  "BSC2001",
  "BSC2002"
],
"availability": [
  "Sept2022",
  "March2002"
],
"instructors": [
  {
    "name": "ABCD",
    "email": "ABCD@efgh.com"
  },
  {
    "name": "EFGH",
    "email": "ijkl@efgh.com"
  }
]
}'
```

Output Response: application/json

```
{
  "message": "accepted",
  "status": "success"
}
```

Test Case 65

Endpoint	http://localhost/api/v1/courses/{id}
Category	Courses
Test Case Description	Syntax error in request
Request Type	PATCH
Expected Response Code	400
Actual Response Code	400
Output Status	As Expected
Result	PASSED

Input Request

```
1  curl --request PATCH \
2    --url http://localhost/api/v1/course/BSC2002 \
3    --header 'Accept: application/json' \
4    --header 'Authorization: Bearer ***' \
5    --header 'Content-Type: application/json' \
6    --data '{
7    "na": "Course 1",
8    "description": "This is course 1",
9    "level": "Degree",
10   "dp_or_ds": "dp",
11   "credits": 3,
12   "pre_req": [
13      "BSC2001",
14      "BSC2002"
15   ],
16   "co_req": [
17      "BSC2001",
18      "BSC2002"
19   ],
20   "availability": [
21      "Sept2022",
22      "March2002"
23   ],
24   "instructors": [
25      {
26        "name": "ABCD",
27        "email": "ABCD@efgh.com"
28      },
29      {
30        "name": "EFGH",
31        "email": "ijkl@efgh.com"
32      }
33   ]
34  }'
```

Output Response: application/json

```
1  {
2    "message": "Bad Request sent",
3    "status": "error"
4  }
```

Test Case 66

Endpoint	http://localhost/api/v1/courses/{id}
Category	Courses
Test Case Description	Auth token missing or invalid
Request Type	PATCH
Expected Response Code	401
Actual Response Code	401
Output Status	As Expected
Result	PASSED

Input Request

```
curl --request PATCH \
  --url http://localhost/api/v1/course/BSC2002 \
  --header 'Accept: application/json' \
  --header 'Content-Type: application/json' \
  --data '{
  "name": "Course 1",
  "description": "This is course 1",
  "level": "Degree",
  "dp_or_ds": "dp",
  "credits": 3,
  "pre_req": [
    "BSC2001",
    "BSC2002"
  ],
  "co_req": [
    "BSC2001",
    "BSC2002"
  ],
  "availability": [
    "Sept2022",
    "March2002"
  ],
  "instructors": [
    {
      "name": "ABCD",
      "email": "ABCD@efgh.com"
    },
    {
      "name": "EFGH",
      "email": "ijkl@efgh.com"
    }
  ]
}'
```

Output Response: application/json

```
{
  "message": "Bad data sent",
  "status": "error"
}
```

Test Case 67

Endpoint	http://localhost/api/v1/courses/{id}
Category	Courses
Test Case Description	Sent Auth of wrong user type
Request Type	PATCH
Expected Response Code	403
Actual Response Code	403
Output Status	As Expected
Result	PASSED

Input Request

```
curl --request PATCH \
  --url http://localhost/api/v1/course/BSC2002 \
  --header 'Accept: application/json' \
  --header 'Authorization: Bearer ***' \
  --header 'Content-Type: application/json' \
  --data '{
"name": "Course 1",
"description": "This is course 1",
"level": "Degree",
"dp_or_ds": "dp",
"credits": 3,
"pre_req": [
  "BSC2001",
  "BSC2002"
],
"co_req": [
  "BSC2001",
  "BSC2002"
],
"availability": [
  "Sept2022",
  "March2002"
],
"instructors": [
  {
    "name": "ABCD",
    "email": "ABCD@efgh.com"
  },
  {
    "name": "EFGH",
    "email": "ijkl@efgh.com"
  }
]
}'
```

Output Response: application/json

```
{
  "message": "Access Denied",
  "status": "error"
}
```

Test Case 68

Endpoint	http://localhost/api/v1/courses/{id}
Category	Courses
Test Case Description	Course Id does not exist in system
Request Type	PATCH
Expected Response Code	404
Actual Response Code	404
Output Status	As Expected
Result	PASSED

Input Request

```
curl --request PATCH \
  --url http://localhost/api/v1/course/BSC20 \
  --header 'Accept: application/json' \
  --header 'Authorization: Bearer ***' \
  --header 'Content-Type: application/json' \
  --data '{
  "name": "Course 1",
  "description": "This is course 1",
  "level": "Degree",
  "dp_or_ds": "dp",
  "credits": 3,
  "pre_req": [
    "BSC2001",
    "BSC2002"
  ],
  "co_req": [
    "BSC2001",
    "BSC2002"
  ],
  "availability": [
    "Sept2022",
    "March2002"
  ],
  "instructors": [
    {
      "name": "ABCD",
      "email": "ABCD@efgh.com"
    },
    {
      "name": "EFGH",
      "email": "ijkl@efgh.com"
    }
  ]
}'
```

Output Response: application/json

```
{
  "message": "The requested resource was not found on this server",
  "status": "error"
}
```

Test Case 69

Endpoint	http://localhost/api/v1/courses/{id}
Category	Courses
Test Case Description	All required fields present and correct
Request Type	DELETE
Expected Response Code	200
Actual Response Code	200
Output Status	As Expected
Result	PASSED

Input Request

```
1  curl --request DELETE \
2    --url http://localhost/api/v1/course/BSC2001 \
3    --header 'Accept: application/json' \
4    --header 'Authorization: Bearer ***'
```

Output Response: application/json

```
1
```

Test Case 70

Endpoint	http://localhost/api/v1/courses/{id}
Category	Courses
Test Case Description	Syntax error in request
Request Type	DELETE
Expected Response Code	400
Actual Response Code	400
Output Status	As Expected
Result	PASSED

Input Request

```
1  curl --request DELETE \
2    --url http://localhost/api/v1/coure/BSC2001 \
3    --header 'Accept: application/json' \
4    --header 'Authorization: Bearer ***'
```

Output Response: application/json

```
1  {
2    "message": "Bad Request sent",
3    "status": "error"
4  }
```

Test Case 71

Endpoint	http://localhost/api/v1/courses/{id}
Category	Courses
Test Case Description	Auth token missing or invalid
Request Type	DELETE
Expected Response Code	401
Actual Response Code	401
Output Status	As Expected
Result	PASSED

Input Request

```
1  curl --request DELETE \
2    --url http://localhost/api/v1/coure/BSC2001 \
3    --header 'Accept: application/json'
```

Output Response: application/json

```
1  {
2    "message": "Bad data sent",
3    "status": "error"
4  }
```

Test Case 72

Endpoint	http://localhost/api/v1/courses/{id}
Category	Courses
Test Case Description	Sent Auth of wrong user type
Request Type	DELETE
Expected Response Code	403
Actual Response Code	403
Output Status	As Expected
Result	PASSED

Input Request

```
1  curl --request DELETE \
2    --url http://localhost/api/v1/coure/BSC2001 \
3    --header 'Accept: application/json' \
4    --header 'Authorization: Bearer ***'
```

Output Response: application/json

```
1  {
2    "message": "Access Denied",
3    "status": "error"
4  }
```

Test Case 73

Endpoint	http://localhost/api/v1/courses/{id}
Category	Courses
Test Case Description	Course Id does not exist in system
Request Type	DELETE
Expected Response Code	404
Actual Response Code	404
Output Status	As Expected
Result	PASSED

Input Request

```
1  curl --request DELETE \
2    --url http://localhost/api/v1/coure/BSC20 \
3    --header 'Accept: application/json' \
4    --header 'Authorization: Bearer ***'
```

Output Response: application/json

```
1  {
2    "message": "The requested resource was not found on this server",
3    "status": "error"
4  }
```

Test Case 74

Endpoint	http://localhost/api/v1/courses
Category	Courses
Test Case Description	All required fields present and correct
Request Type	GET
Expected Response Code	200
Actual Response Code	200
Output Status	As Expected
Result	PASSED

Input Request

```
curl --request GET \
  --url http://localhost/api/v1/courses \
  --header 'Accept: application/json' \
  --header 'Authorization: Bearer ***'
```

Output Response: application/json

```json
{
  "courses": [
    {
      "id": "BSC2001",
      "name": "Course 1",
      "description": "This is course 1",
      "difficulty_rating": 8.92,
      "level": "Bsc",
      "credits": 4,
      "dp_or_ds": "dp",
      "pre_req": [
        "BSC2001",
        "BSC2002"
      ],
      "co_req": [
        "BSC2001",
        "BSC2002"
      ],
      "availability": [
        "Sept2022",
        "March2002"
      ],
      "instructors": [
        {
          "name": "ABCD",
          "email": "ABCD@efgh.com"
        },
        {
          "name": "EFGH",
          "email": "ijkl@efgh.com"
        }
      ]
    }
  ]
```

Test Case 75

Endpoint   http://localhost/api/v1/courses
Category   Courses
Test Case Description   Auth token missing or invalid

Request Type   GET
Expected Response Code   401
Actual Response Code   401

Output Status   As Expected
Result   PASSED

Input Request

```
1  curl --request GET \
2    --url http://localhost/api/v1/courses \
3    --header 'Accept: application/json'
```

Output Response: application/json

```
1  {
2    "message": "Bad data sent",
3    "status": "error"
4  }
```

Test Case 76

Endpoint   http://localhost/api/v1/courses
Category   Courses
Test Case Description   Sent Auth of wrong user type

Request Type   GET
Expected Response Code   403
Actual Response Code   403

Output Status   As Expected
Result   PASSED

Input Request

```
1  curl --request GET \
2    --url http://localhost/api/v1/courses \
3    --header 'Accept: application/json' \
4    --header 'Authorization: Bearer ***'
```

Output Response: application/json

```
1  {
2    "message": "Access Denied",
3    "status": "error"
4  }
```

Test Case 77

Endpoint	http://localhost/api/v1/courses
Category	Courses
Test Case Description	No courses in system
Request Type	GET
Expected Response Code	404
Actual Response Code	404
Output Status	As Expected
Result	PASSED

Input Request

```
1  curl --request GET \
2    --url http://localhost/api/v1/courses \
3    --header 'Accept: application/json' \
4    --header 'Authorization: Bearer ***'
```

Output Response: application/json

```
1  {
2    "message": "The requested resource was not found on this server",
3    "status": "error"
4  }
```

Test Case 78

Endpoint	http://localhost/api/v1/courses
Category	Courses
Test Case Description	All required fields present and correct
Request Type	POST
Expected Response Code	201
Actual Response Code	201
Output Status	As Expected
Result	PASSED

Input Request

```
curl --request POST \
  --url http://localhost/api/v1/courses \
  --header 'Accept: application/json' \
  --header 'Authorization: Bearer ***' \
  --header 'Content-Type: application/json' \
  --data '{
  "code": "BSC2001",
  "name": "Course 1",
  "description": "This is course 1",
  "level": "Degree",
  "dp_or_ds": "dp",
  "credits": 4,
  "pre_req": [
    "BSC2001",
    "BSC2002"
  ],
  "co_req": [
    "BSC2001",
    "BSC2002"
  ],
  "availability": [
    "Sept2022",
    "March2002"
  ],
  "instructors": [
    {
      "name": "ABCD",
      "email": "ABCD@efgh.com"
    },
    {
      "name": "EFGH",
      "email": "ijkl@efgh.com"
    }
  ]
}'
```

Output Response: application/json

```
{
  "message": "created",
  "status": "success"
}
```

Test Case 79

Endpoint	http://localhost/api/v1/courses
Category	Courses
Test Case Description	Auth token missing or invalid
Request Type	POST
Expected Response Code	401
Actual Response Code	401
Output Status	As Expected
Result	PASSED

Input Request

```
curl --request POST \
  --url http://localhost/api/v1/courses \
  --header 'Accept: application/json' \
  --header 'Content-Type: application/json' \
  --data '{
  "code": "BSC2001",
  "name": "Course 1",
  "description": "This is course 1",
  "level": "Degree",
  "dp_or_ds": "dp",
  "credits": 4,
  "pre_req": [
    "BSC2001",
    "BSC2002"
  ],
  "co_req": [
    "BSC2001",
    "BSC2002"
  ],
  "availability": [
    "Sept2022",
    "March2002"
  ],
  "instructors": [
    {
      "name": "ABCD",
      "email": "ABCD@efgh.com"
    },
    {
      "name": "EFGH",
      "email": "ijkl@efgh.com"
    }
  ]
}'
```

Output Response: application/json

```
401
{
  "message": "Bad data sent",
  "status": "error"
```

Test Case 80

Endpoint	http://localhost/api/v1/courses
Category	Courses
Test Case Description	Sent Auth of wrong user type
Request Type	POST
Expected Response Code	403
Actual Response Code	403
Output Status	As Expected
Result	PASSED

Input Request

```
1  curl --request POST \
2    --url http://localhost/api/v1/courses \
3    --header 'Accept: application/json' \
4    --header 'Authorization: Bearer ***' \
5    --header 'Content-Type: application/json' \
6    --data '{
7    "code": "BSC2001",
8    "name": "Course 1",
9    "description": "This is course 1",
10   "level": "Degree",
11   "dp_or_ds": "dp",
12   "credits": 4,
13   "pre_req": [
14     "BSC2001",
15     "BSC2002"
16   ],
17   "co_req": [
18     "BSC2001",
19     "BSC2002"
20   ],
21   "availability": [
22     "Sept2022",
23     "March2002"
24   ],
25   "instructors": [
26     {
27       "name": "ABCD",
28       "email": "ABCD@efgh.com"
29     },
30     {
31       "name": "EFGH",
32       "email": "ijkl@efgh.com"
33     }
34   ]
35 }'
```

Output Response: application/json

```
1  {
2    "message": "Access Denied",
3    "status": "error"
```

Test Case 81

Endpoint	http://localhost/api/v1/courses
Category	Courses
Test Case Description	Syntax error in request
Request Type	POST
Expected Response Code	400
Actual Response Code	400
Output Status	As Expected
Result	PASSED

Input Request

```
1  curl --request POST \
2    --url http://localhost/api/v1/courses \
3    --header 'Accept: application/json' \
4    --header 'Authorization: Bearer ***' \
5    --header 'Content-Type: application/json' \
6    --data '{
7    "coe": "BSC2001",
8    "name": "Course 1",
9    "description": "This is course 1",
10   "level": "Degree",
11   "dp_or_ds": "dp",
12   "credits": 4,
13   "pre_req": [
14     "BSC2001",
15     "BSC2002"
16   ],
17   "co_req": [
18     "BSC2001",
19     "BSC2002"
20   ],
21   "availability": [
22     "Sept2022",
23     "March2002"
24   ],
25   "instructors": [
26     {
27       "name": "ABCD",
28       "email": "ABCD@efgh.com"
29     },
30     {
31       "name": "EFGH",
32       "email": "ijkl@efgh.com"
33     }
34   ]
35  }'
```

Output Response: application/json

```
1  {
2    "message": "Bad Request sent",
3    "status": "error"
```

Test Case 82

Endpoint	http://localhost/api/v1/course/{id}/feedback
Category	Feedback
Test Case Description	All required fields present and correct
Request Type	GET
Expected Response Code	200
Actual Response Code	200
Output Status	As Expected
Result	PASSED

Input Request

```
curl --request GET \
  --url http://localhost/api/v1/course/BSC2001/feedback \
  --header 'Accept: application/json' \
  --header 'Authorization: Bearer **'
```

Output Response: application/json

```json
{
  "feedbacks": [
    {
      "id": 1,
      "poster": "21f2000381@ds.study.iitm.ac.in",
      "pic": "myprofilepic.png",
      "rating": 5.6,
      "description": "This is a good course",
      "time": "2012-04-23T18:25:43.511Z"
    }
  ]
}
```

Test Case 83

Endpoint	http://localhost/api/v1/course/{id}/feedback
Category	Courses
Test Case Description	Sent Auth token of wrong user type
Request Type	GET
Expected Response Code	403
Actual Response Code	403
Output Status	As Expected
Result	PASSED

Input Request

```
1  curl --request GET \
2    --url http://localhost/api/v1/course/BSC2001/feedback \
3    --header 'Accept: application/json' \
4    --header 'Authorization: Bearer **'
```

Output Response: application/json

```
1  {
2    "message": "Access Denied",
3    "status": "error"
4  }
```

Test Case 84

Endpoint	http://localhost/api/v1/course/{id}/feedback
Category	Courses
Test Case Description	Auth token missing or invalid
Request Type	GET
Expected Response Code	401
Actual Response Code	401
Output Status	As Expected
Result	PASSED

Input Request

```
1  curl --request GET \
2    --url http://localhost/api/v1/course/BSC2001/feedback \
3    --header 'Accept: application/json'
```

Output Response: application/json

```
1  {
2    "message": "Bad data sent",
3    "status": "error"
4  }
```

Test Case 85

Endpoint	http://localhost/api/v1/course/{id}/feedback
Category	Courses
Test Case Description	Id in request does not exist
Request Type	GET
Expected Response Code	404
Actual Response Code	404
Output Status	As Expected
Result	PASSED

Input Request

```
1  curl --request GET \
2    --url http://localhost/api/v1/course/BSC2006/feedback \
3    --header 'Accept: application/json' \
4    --header 'Authorization: Bearer **'
```

Output Response: application/json

```
1  {
2    "message": "The requested resource was not found on this server",
3    "status": "error"
4  }
```