

EC5070 DATABASE SYSTEMS

LAB 02

BANDARA H.G.T.D.

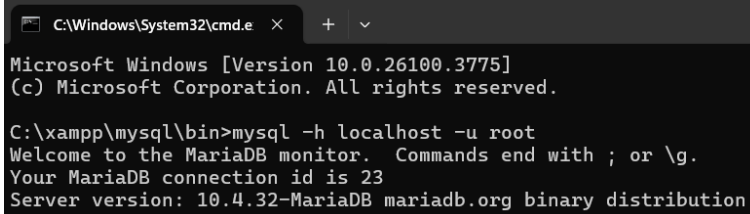
2022/E/048

GROUP CG04

SEMESTER 05

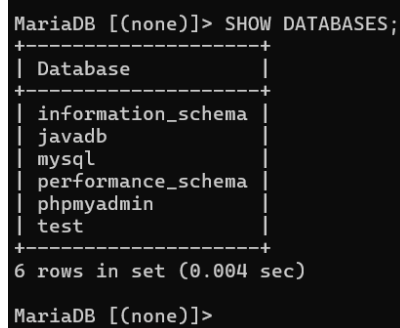
2 MAY 2025

TASK 01



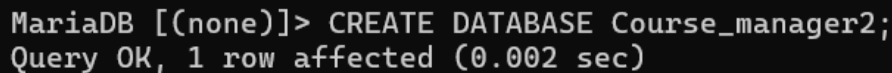
```
C:\Windows\System32\cmd.e  ×  +  ▾  
Microsoft Windows [Version 10.0.26100.3775]  
(c) Microsoft Corporation. All rights reserved.  
  
C:\xampp\mysql\bin>mysql -h localhost -u root  
Welcome to the MariaDB monitor.  Commands end with ; or \g.  
Your MariaDB connection id is 23  
Server version: 10.4.32-MariaDB mariadb.org binary distribution
```

FIGURE 01: CONNECT TO THE MySQL



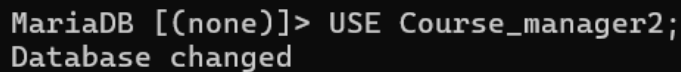
```
MariaDB [(none)]> SHOW DATABASES;  
+-----+  
| Database |  
+-----+  
| information_schema |  
| javadb |  
| mysql |  
| performance_schema |  
| phpmyadmin |  
| test |  
+-----+  
6 rows in set (0.004 sec)  
  
MariaDB [(none)]>
```

FIGURE 02: VIEW ALL DATABASES ON YOUR LOCALHOST.



```
MariaDB [(none)]> CREATE DATABASE Course_manager2;  
Query OK, 1 row affected (0.002 sec)
```

FIGURE 03: CREATE A DATABASE COURSE_MANAGER2.



```
MariaDB [(none)]> USE Course_manager2;  
Database changed
```

FIGURE 04: SELECT OR ACCESS A DATABASE USING ‘USE’ COMMAND.

```
MariaDB [(none)]> USE Course_manager2;
Database changed
MariaDB [Course_manager2]> CREATE TABLE Course (
  ->   Ccode VARCHAR(10) NOT NULL,
  ->   Cname VARCHAR(100),
  ->   Credit INT,
  ->   PRIMARY KEY (Ccode)
  -> ) ENGINE=InnoDB;
Query OK, 0 rows affected (0.029 sec)

MariaDB [Course_manager2]> CREATE TABLE MA (
  ->   MID VARCHAR(10) NOT NULL,
  ->   Mname VARCHAR(100),
  ->   PRIMARY KEY (MID)
  -> ) ENGINE=InnoDB;
Query OK, 0 rows affected (0.013 sec)

MariaDB [Course_manager2]> CREATE TABLE Manage (
  ->   Code VARCHAR(10) NOT NULL,
  ->   MAid VARCHAR(10) NOT NULL,
  ->   Semester INT,
  ->   PRIMARY KEY (Code, Semester),
  ->   CONSTRAINT fk_code FOREIGN KEY (Code) REFERENCES Course(Ccode)
  ->   ON DELETE CASCADE ON UPDATE CASCADE,
  ->   CONSTRAINT fk_maid FOREIGN KEY (MAid) REFERENCES MA(MID)
  ->   ON DELETE CASCADE ON UPDATE CASCADE
  -> ) ENGINE=InnoDB;
Query OK, 0 rows affected (0.045 sec)
```

FIGURE 05: CREATE NECESSARY TABLES.

```

MariaDB [Course_manager2]> INSERT INTO MA (MID, Mname) VALUES
-> ('MA01', 'Nimal'),
-> ('MA02', 'Kamal'),
-> ('MA03', 'Siva'),
-> ('MA04', 'Ruwan'),
-> ('MA05', 'Janani');
Query OK, 5 rows affected (0.007 sec)
Records: 5  Duplicates: 0  Warnings: 0

MariaDB [Course_manager2]> INSERT INTO Course (Ccode, Cname, Credit) VALUES
-> ('CS101', 'Databases', 3),
-> ('CS102', 'Algorithms', 3),
-> ('CS103', 'Networks', 3),
-> ('CS104', 'Artificial Intelligence', 3),
-> ('CS105', 'Operating Systems', 3);
Query OK, 5 rows affected (0.007 sec)
Records: 5  Duplicates: 0  Warnings: 0

MariaDB [Course_manager2]> INSERT INTO Manage (Code, MAid, Semester) VALUES
-> ('CS101', 'MA01', 1),
-> ('CS102', 'MA02', 2),
-> ('CS103', 'MA03', 3),
-> ('CS104', 'MA04', 4),
-> ('CS105', 'MA05', 5);
Query OK, 5 rows affected (0.006 sec)
Records: 5  Duplicates: 0  Warnings: 0

MariaDB [Course_manager2]> |

```

FIGURE 06: INSERT DATA TO THE TABLES

```

MariaDB [Course_manager2]> SELECT C.Ccode, C.Cname, C.Credit
-> FROM Course C
-> JOIN Manage M ON C.Ccode = M.Code
-> WHERE M.Semester = 4;
+-----+-----+-----+
| Ccode | Cname                | Credit |
+-----+-----+-----+
| CS104 | Artificial Intelligence |      3 |
+-----+-----+-----+
1 row in set (0.005 sec)

MariaDB [Course_manager2]>

```

FIGURE 07: LIST THE COURSE DETAILS OF SEMESTER 1 (ONE OF THE SEMESTER).

TASK 02

The screenshot shows a web browser at localhost/Course_Page/index.php. The page header features the Faculty of Engineering University of Jaffna logo and the title 'Course Management System' with the subtitle 'Add, Edit, Delete Courses by Semester'. A 'Select Semester:' dropdown menu is set to 'Semester 1'. Below this is a 'Course List' section with a table containing one course: CS101, Databases, 3 credits, and Nimal as the manager. A 'Delete' button is next to the course. A '+ Add New Course' button is in the top right of the course list area, and a 'Save' button is at the bottom left.

Select Semester:

Semester 1

Course List [+ Add New Course](#)

Code	Name	Credit	Lecture Hours	Manager	Actions
CS101	Databases	3		Nimal	Delete

[Save](#)

FIGURE 08: MAIN PAGE

The screenshot shows the same web browser and page layout as Figure 08, but the 'Select Semester:' dropdown menu is now set to 'Semester 2'. The 'Course List' table now contains two courses: CS102 (Algorithms, 3 credits, 8 lecture hours, Kamal as manager) and CS234 (Mathematics, 3 credits, 8 lecture hours, Kadiragamanathan as manager). Each course has a 'Delete' button. The '+ Add New Course' button and 'Save' button are still present.

Select Semester:

Semester 2

Course List [+ Add New Course](#)

Code	Name	Credit	Lecture Hours	Manager	Actions
CS102	Algorithms	3	8	Kamal	Delete
CS234	Mathematics	3	8	Kadiragamanathan	Delete

[Save](#)

FIGURE 09: SEARCH A COURSE BY SEMESTER (Now selected Semester 2)

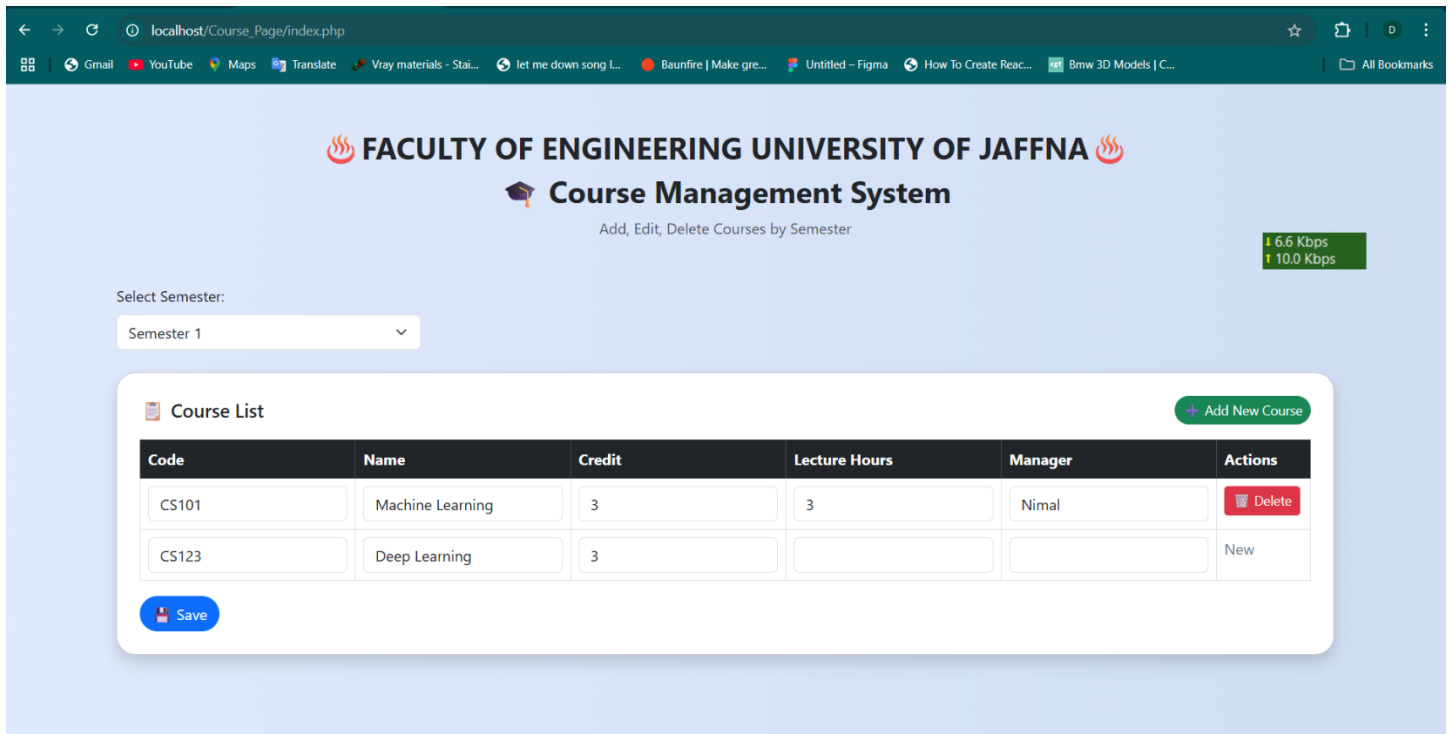


FIGURE 10: ADD A NEW COURSE

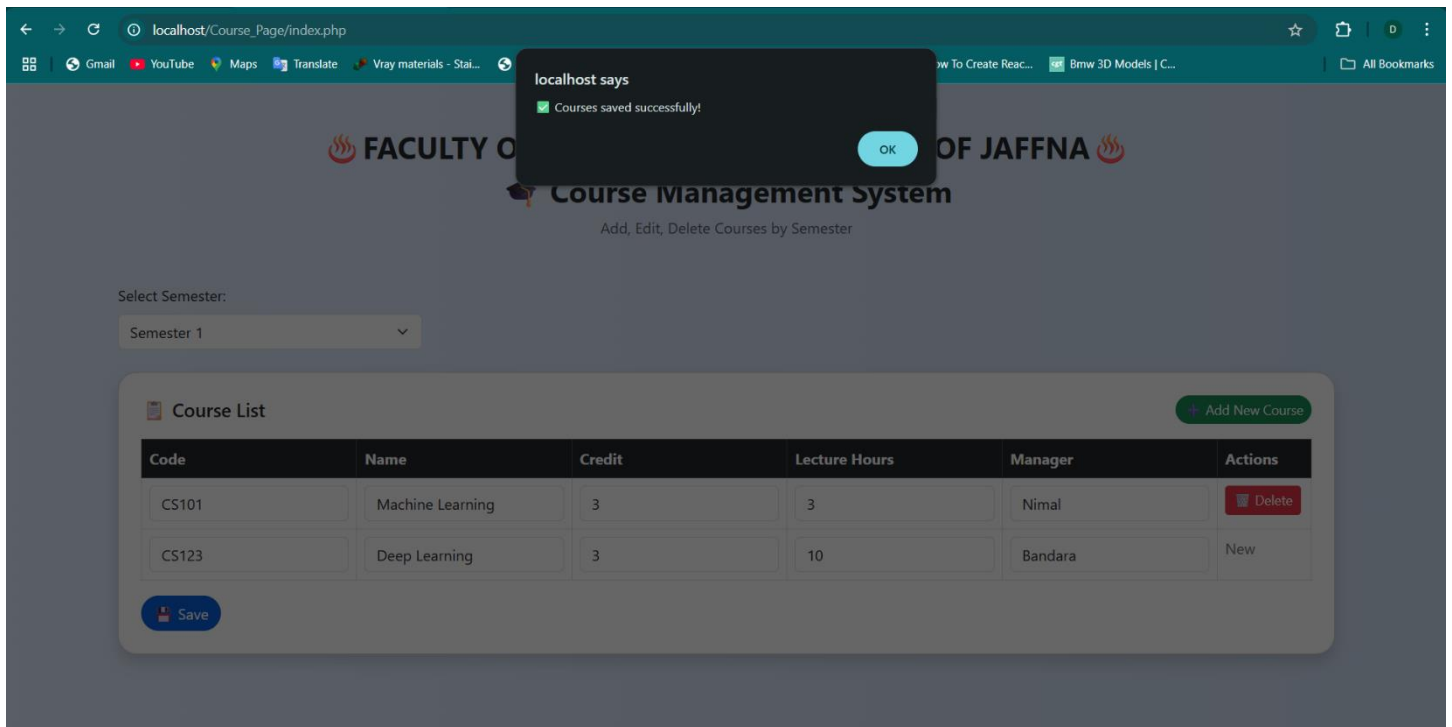


FIGURE 11: ADDED SUCCESSFULLY

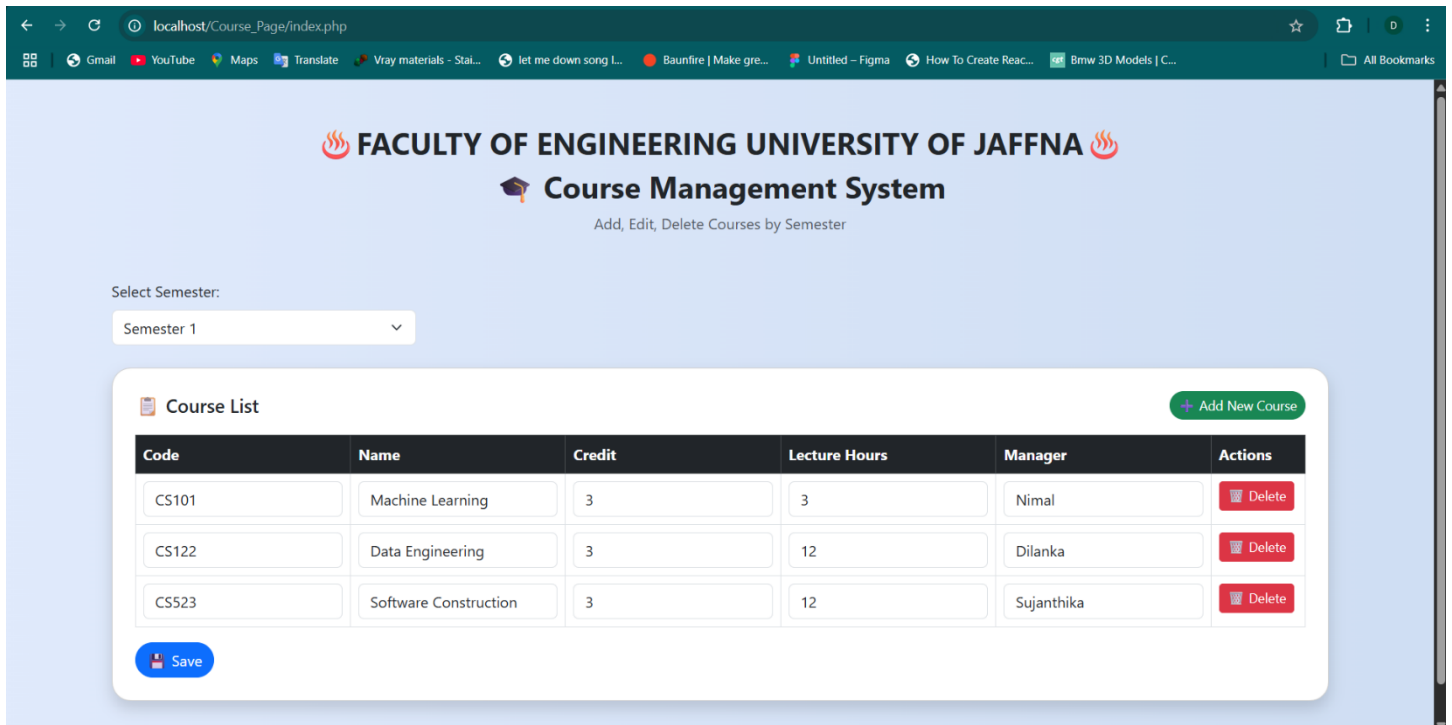


FIGURE 12: AFTER ADD A NEW COURSES

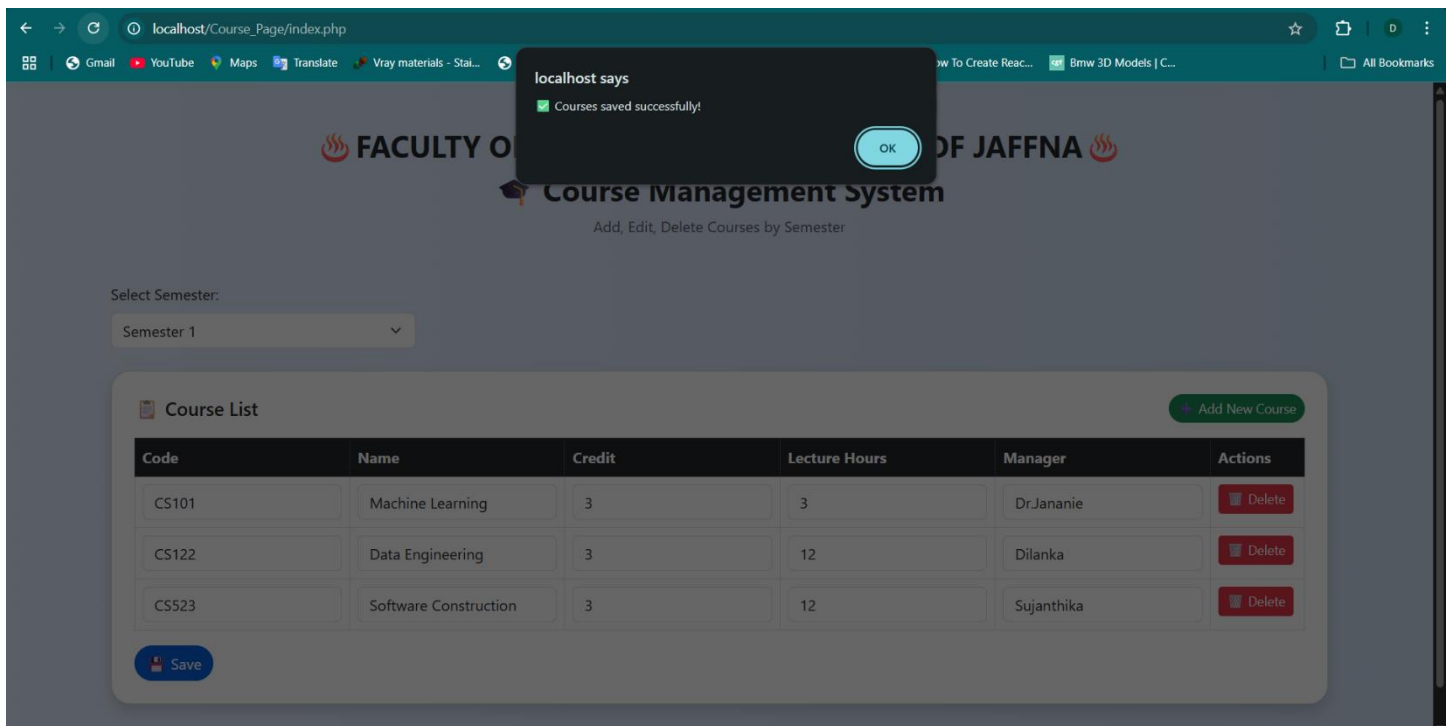


FIGURE 13: EDIT TO A COURSE (MANAGER OF CS101)

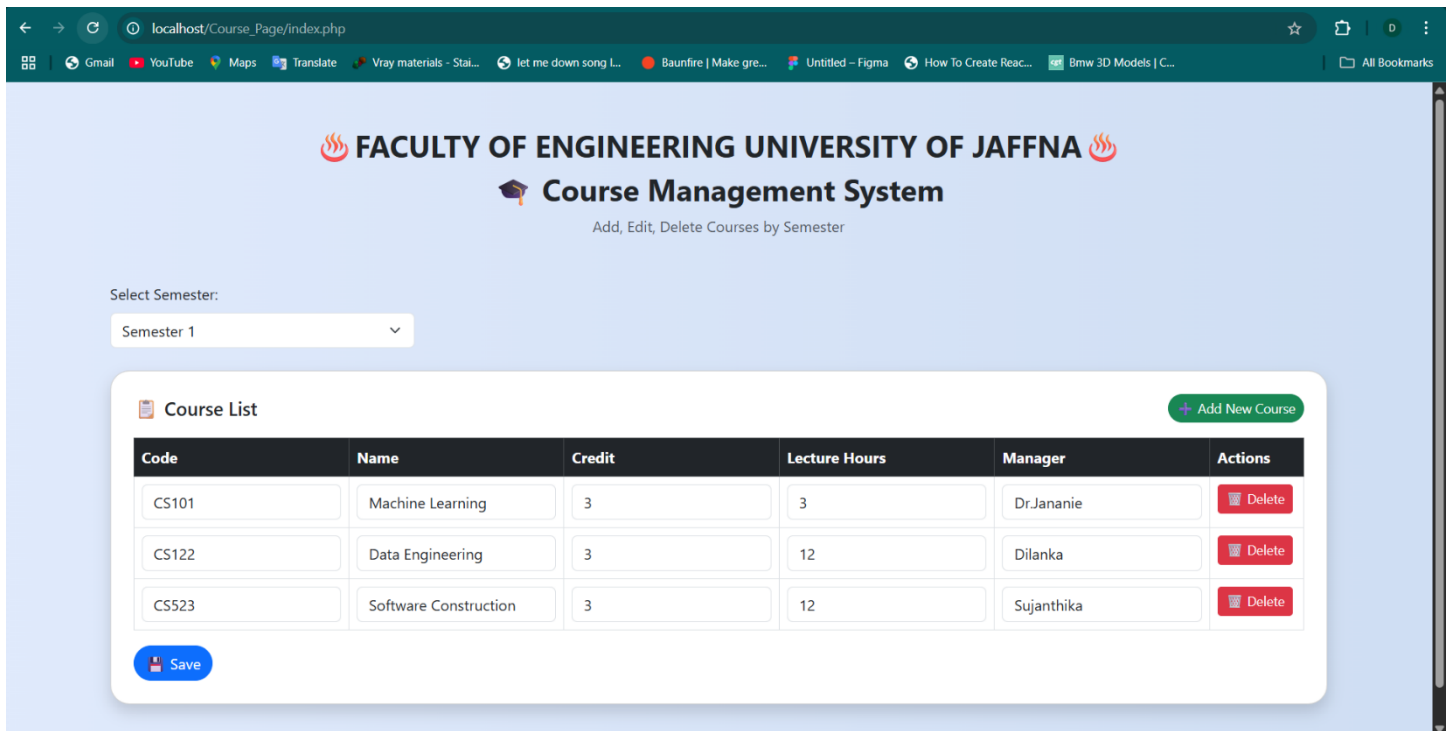


FIGURE 14: AFTER EDIT A COURSE

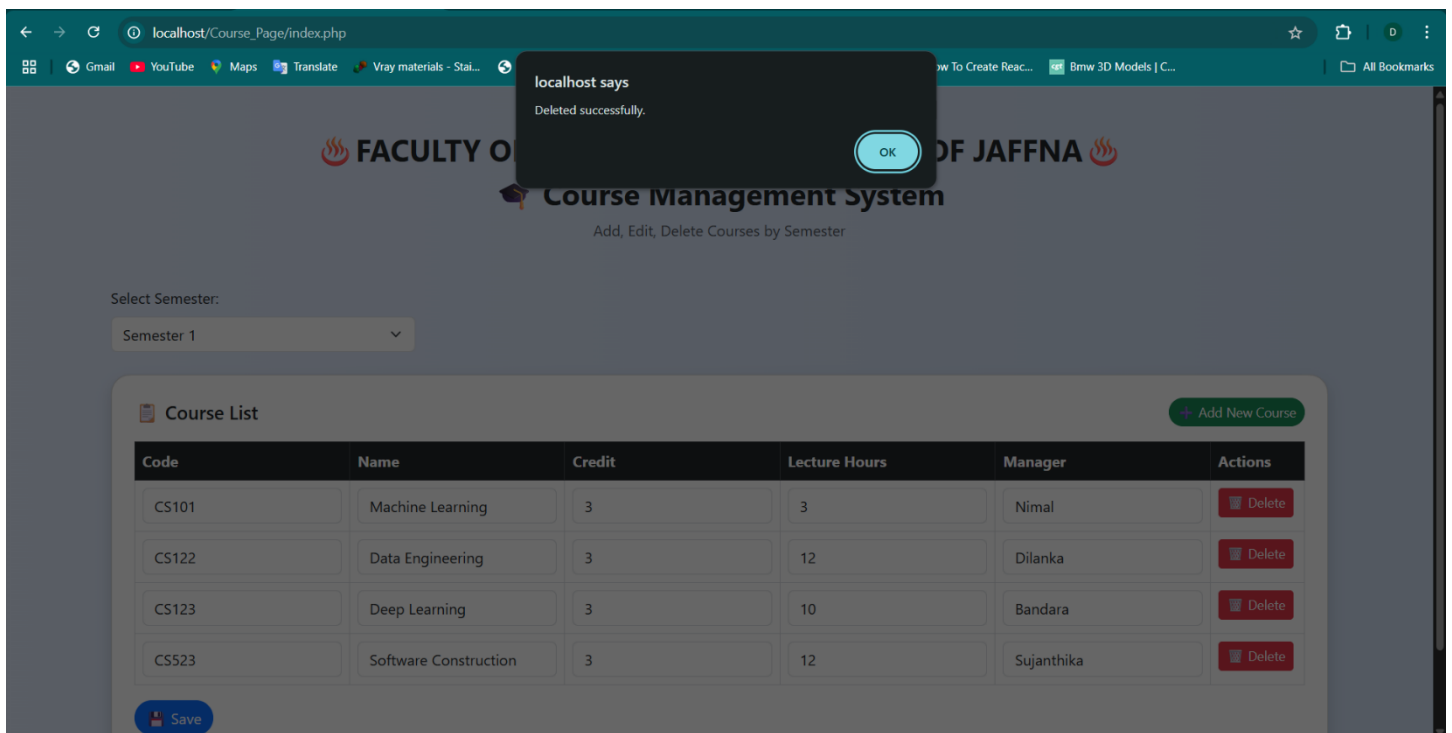


FIGURE 15: DELETE A COURSE (Deep Learning course going to delete)

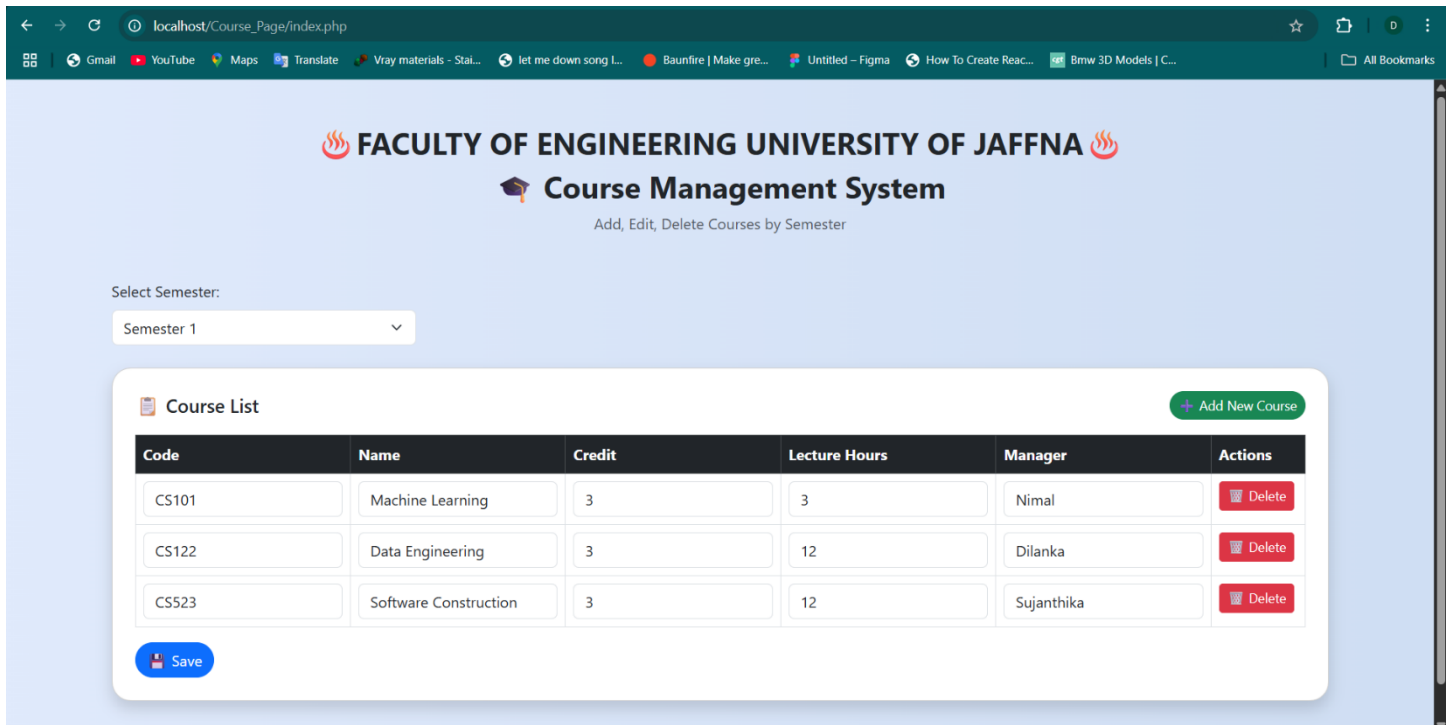


FIGURE 16: AFTER DELETING A COURSE