department

id	INTEGER
dept_name	VARCHAR(100)

program

id	INTEGER
program_name	VARCHAR(100)
department_id	INTEGER

StudentLoginInfo

username	VARCHAR(120)
roll_number	VARCHAR(9)
department_id	INTEGER
program_id	INTEGER
password	VARCHAR(100)
dob	DATE
gender	VARCHAR(10)

TeacherInfo

id	INTEGER
unique_id	VARCHAR(10)
name	VARCHAR(40)
title	VARCHAR(30)
phone	VARCHAR(15)
email	VARCHAR(254)
department_id	INTEGER
images	VARCHAR(100)

StudentData

id	INTEGER
name	VARCHAR(122)
email	VARCHAR(254)
professor_id	INTEGER
std_id	VARCHAR(9)
is_generated	BOOLEAN
years_taught	VARCHAR(10)
is_pro	VARCHAR(3)
subjects	VARCHAR(500)
is_paper	VARCHAR(500)
intern	BOOLEAN

Project

id	INTEGER
supervised_project	VARCHAR(100)
final_project	VARCHAR(200)
deployed	BOOLEAN
student_id	INTEGER

Paper

id	INTEGER
paper_title	VARCHAR(100)
paper_link	VARCHAR(200)
student_id	INTEGER

Files

id	INTEGER
transcript	VARCHAR(100)
CV	VARCHAR(100)
Photo	VARCHAR(100)
student_id	INTEGER

University

id	INTEGER
uni_name	VARCHAR(100)
uni_deadline	DATE
program_applied	VARCHAR(100)
student_id	INTEGER

Academics

id	INTEGER
gpa	VARCHAR(50)
tentative_ranking	VARCHAR(50)
student_id	INTEGER

Qualities

id	INTEGER
leadership	BOOLEAN
hardworking	BOOLEAN
social	BOOLEAN
teamwork	BOOLEAN
friendly	BOOLEAN
quality	VARCHAR(50)
presentation	VARCHAR(50)
extracirricular	VARCHAR(50)
recommend	VARCHAR(50)
student_id	INTEGER

Fig: Schema Diagram

2. Database Creation

```sql
CREATE TABLE department (
    id INTEGER AUTO_INCREMENT PRIMARY KEY,
    dept_name VARCHAR(100) UNIQUE,
);


CREATE TABLE program (
    id INTEGER AUTO_INCREMENT PRIMARY KEY,
    program_name VARCHAR(100) UNIQUE,
    department_id INTEGER,
    FOREIGN KEY (department_id) REFERENCES department(id) ON DELETE
CASCADE
);


CREATE TABLE StudentLoginInfo (
    username VARCHAR(120),
    roll_number VARCHAR(9) PRIMARY KEY,
    department_id INTEGER,
    program_id INTEGER,
    password VARCHAR(100),
    dob DATE,
    gender VARCHAR(10),
    FOREIGN KEY (department_id) REFERENCES department(id) ON DELETE
CASCADE,
    FOREIGN KEY (program_id) REFERENCES program(id) ON DELETE CASCADE
);


CREATE TABLE TeacherInfo (
    id INTEGER AUTO_INCREMENT PRIMARY KEY,
    unique_id VARCHAR(10),
    name VARCHAR(40),
    title VARCHAR(30),
    phone VARCHAR(15),
    email VARCHAR(254),
    department_id INTEGER,
    images VARCHAR(100),
);

CREATE TABLE StudentData (
    id INTEGER AUTO_INCREMENT PRIMARY KEY,
```

```sql
    name VARCHAR(122),
    email VARCHAR(254),
    professor_id INTEGER,
    std_id VARCHAR(9),
    is_generated BOOLEAN,
    years_taught VARCHAR(10),
    is_pro VARCHAR(3),
    subjects VARCHAR(500),
    is_paper VARCHAR(500),
    intern BOOLEAN,
    FOREIGN KEY (professor_id) REFERENCES TeacherInfo(id) ON DELETE
CASCADE,
    FOREIGN KEY (std_id) REFERENCES StudentLoginInfo(roll_number) ON
DELETE CASCADE
);


CREATE TABLE Paper (
    id INTEGER AUTO_INCREMENT PRIMARY KEY,
    paper_title VARCHAR(100),
    paper_link VARCHAR(200),
    student_id INTEGER,
    FOREIGN KEY (student_id) REFERENCES StudentData(id) ON DELETE
CASCADE
);


CREATE TABLE Project (
    id INTEGER AUTO_INCREMENT PRIMARY KEY,
    supervised_project VARCHAR(100),
    final_project VARCHAR(200),
    deployed BOOLEAN,
    student_id INTEGER,
    FOREIGN KEY (student_id) REFERENCES StudentData(id) ON DELETE
CASCADE
);


CREATE TABLE University (
    id INTEGER AUTO_INCREMENT PRIMARY KEY,
    uni_name VARCHAR(100),
    uni_deadline DATE,
    program_applied VARCHAR(100),
    student_id INTEGER,
```

```
    FOREIGN KEY (student_id) REFERENCES StudentData(id) ON DELETE
CASCADE );
CREATE TABLE Qualities (
    id INTEGER AUTO_INCREMENT PRIMARY KEY,
    leadership BOOLEAN,
    hardworking BOOLEAN,
    social BOOLEAN,
    teamwork BOOLEAN,
    friendly BOOLEAN,
    quality VARCHAR(50),
    presentation VARCHAR(50),
    extracurricular VARCHAR(50),
    recommend VARCHAR(50),
    student_id INTEGER,
    FOREIGN KEY (student_id) REFERENCES StudentData(id) ON DELETE
CASCADE
);


CREATE TABLE Academics (
    id INTEGER AUTO_INCREMENT PRIMARY KEY,
    gpa VARCHAR(50),
    tentative_ranking VARCHAR(50),
    student_id INTEGER,
    FOREIGN KEY (student_id) REFERENCES StudentData(id) ON DELETE
CASCADE
);


CREATE TABLE Files (
    id INTEGER AUTO_INCREMENT PRIMARY KEY,
    transcript VARCHAR(100),
    CV VARCHAR(100),
    Photo VARCHAR(100),
    student_id INTEGER,
    FOREIGN KEY (student_id) REFERENCES StudentData(id) ON DELETE
CASCADE
);
```
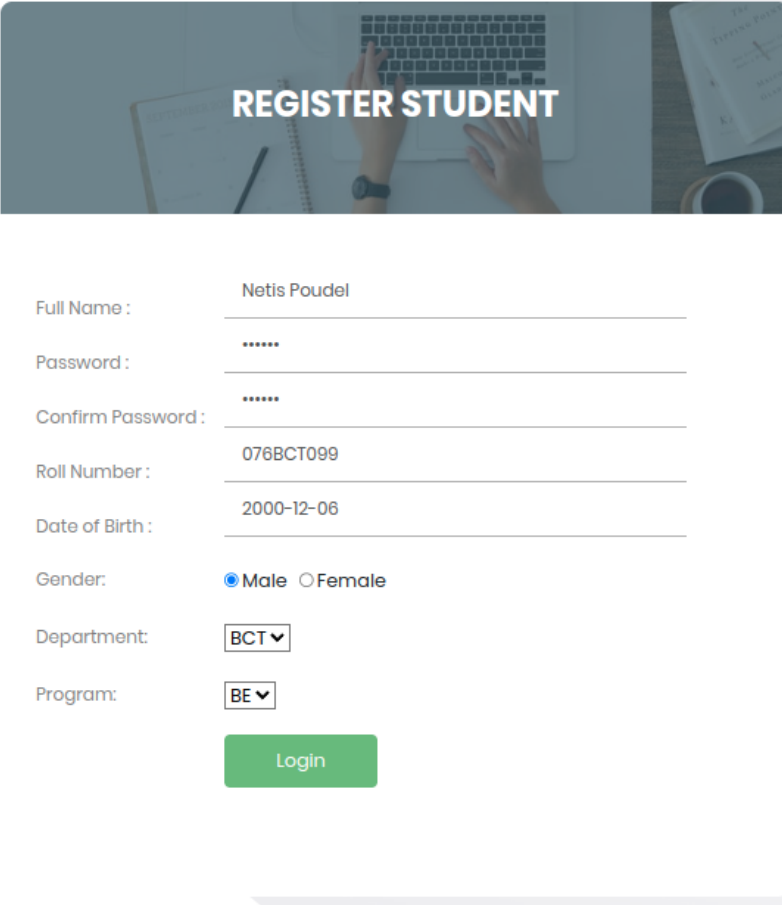
1. Student Registration
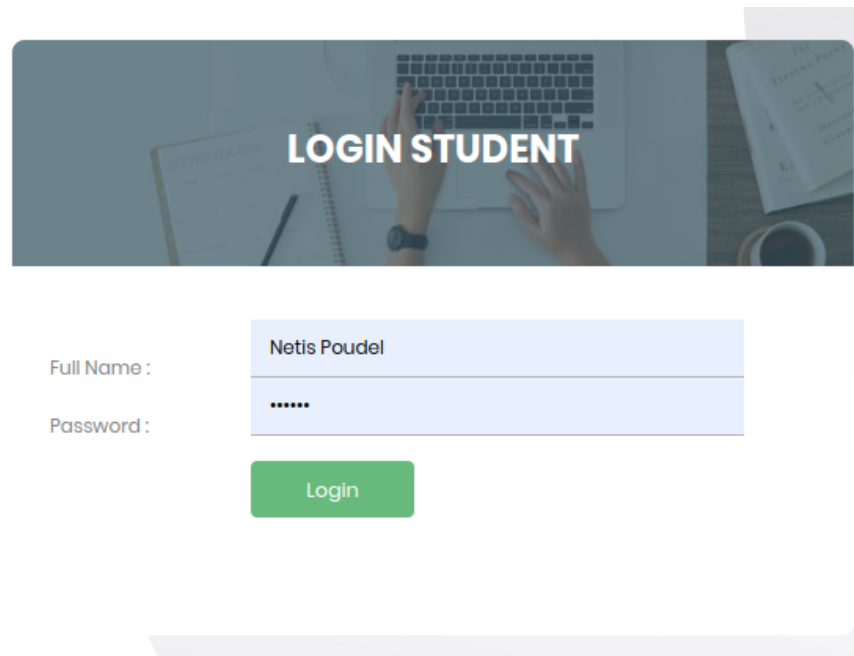
Queries

A. SELECT * FROM StudentLoginInfo WHERE
   StudentLoginInfo.roll_number = ''076BCT099''

B. INSERT INTO StudentLoginInfo ("username", "roll_number",
   "department_id", "program_id", "password", "dob", "gender")
   VALUES (''Netis Poudel'', ''076BCT099'', 1, 1,
   ''pbkdf2_sha256$260000$mv9YtEyN6ksuX8QLzgiLlN$fmtSW3mC/oh9RGtM/
   Oe9Ql0/p6wc737eLkrROIqQCB4='', ''2000-12-06'', ''Male'')

C. UPDATE StudentLoginInfo SET username = ''Netis Poudel'',
   department_id = 1, program_id = 1, password =
   ''pbkdf2_sha256$260000$mv9YtEyN6ksuX8QLzgiLlN$fmtSW3mC/oh9RGtM/
   Oe9Ql0/p6wc737eLkrROIqQCB4='', dob = ''2000-12-06'', "gender" =
   ''Male'' WHERE StudentLoginInfo.roll_number = ''076BCT099''

2. Student Login

Queries

A. SELECT * FROM StudentData INNER JOIN StudentLoginInfo ON
   (StudentData.std_id = StudentLoginInfo.roll_number) WHERE
   StudentLoginInfo.username = ''Netis Poudel''

3. Fill out Form-1 (After Student Login)

Queries

A. SELECT * FROM StudentData WHERE StudentData.name = ''Netis Poudel''

B. INSERT INTO StudentData ("name", "email", "professor_id", "std_id", "is_generated", "years_taught", "is_pro", "subjects", "is_paper", "intern") VALUES (''Netis Poudel'', ''076BCT099.netis@pcampus.edu.np'', '1', ''076BCT099'', False, ''2 years'', ''Yes'', ''DBMS'', ''No'', True)

C. SELECT * FROM Project WHERE Project.student_id = 17

D. INSERT INTO Project ("supervised_project", "final_project", "deployed", "student_id") VALUES (''Peer to Peer File Sharing'', ''Mero Ghar'', 'True', 17)

E. SELECT * FROM Paper WHERE Paper.student_id = 17

F. INSERT INTO Paper ("paper_title", "paper_link", "student_id") VALUES ('', '', 17)

4. Fill out Form-2 (After FIll out Form-1)

Additional Info

Requesting University
Tribhuvan University

Program Applied
BE

Deadline
03/22/2023

GPA:
3.88

Tentative Ranking
Batch Topper

Transcript
Choose File | oops.png

Recent CV
Choose File | apple-tou...-icon.png

Photo
Choose File | roshan.png

Extracurricular Activities
Football, Cricket, Volleyball, Basketb

Submit

Queries

A. SELECT * FROM StudentData WHERE StudentData.std_id = ''076BCT099''

B. SELECT * FROM University WHERE University.student_id = 17 LIMIT 1

```
C. INSERT INTO University ("uni_name", "uni_deadline",
   "program_applied", "student_id") VALUES (''Tribhuvan
   University'', ''2023-03-22'', ''BE'', 17)

D. SELECT * FROM Academics WHERE Academics.student_id = 17

E. INSERT INTO Academics ("student_id", "gpa",
   "tentative_ranking") VALUES (17, 3.88, ''Batch Topper'')

F. SELECT * FROM Files WHERE Files.student_id = 17

G. INSERT INTO Files ("transcript", "CV", "Photo", "student_id")
   VALUES (''transcript/oops.png'', ''cv/apple-touch-icon.png'',
   ''student_photo/roshan_Mzy2T7Q.png'', 17)

H. SELECT * FROM Qualities WHERE Qualities.student_id = 17

I. INSERT INTO Qualities ("student_id", "leadership",
   "hardworking", "social", "teamwork", "friendly", "quality",
   "presentation", "extracurricular", "recommend") VALUES (17,
   False, False, False, False, False, None, None, None, None)
```
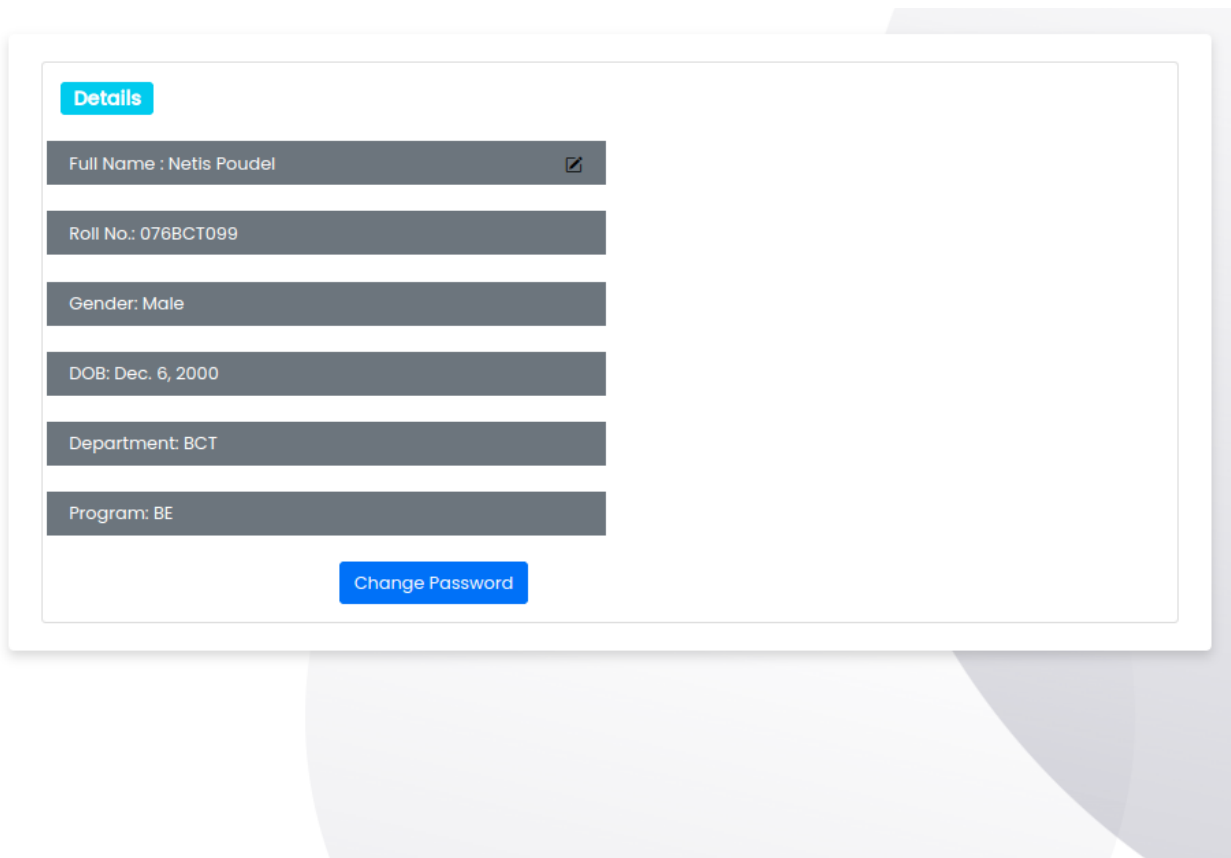
5. (After Fill Form-2 Submission)

Your request has been successfully submitted.

6. User's Profile

Details

Full Name : Netis Poudel

Roll No.: 076BCT099
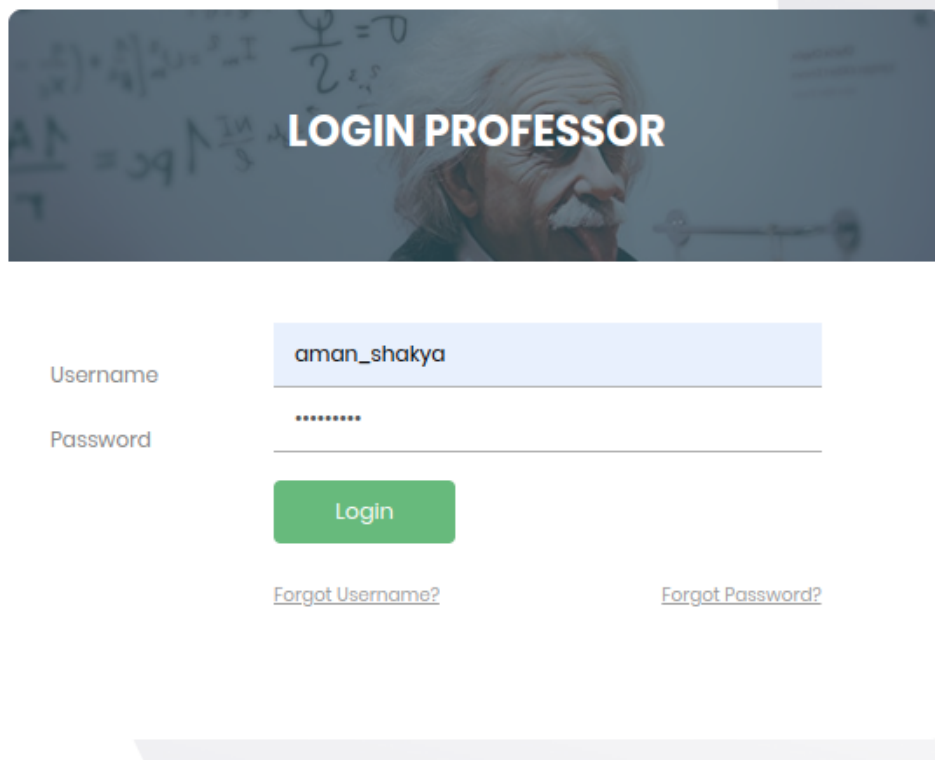
Gender: Male

DOB: Dec. 6, 2000

Department: BCT

Program: BE

Change Password

Queries

A. SELECT * FROM StudentLoginInfo WHERE StudentLoginInfo.username
   = ''Netis Poudel''

B. SELECT * FROM department WHERE department.id = 1

C. SELECT * FROM program WHERE program.id = 1

7. Login to Professor

Queries

A. SELECT * FROM auth_user WHERE auth_user.username = ''aman_shakya''

9. Professor's Homepage

Queries

A. SELECT * FROM StudentData INNER JOIN TeacherInfo ON
   (StudentData.professor_id = TeacherInfo.id) WHERE (NOT
   StudentData.is_generated AND TeacherInfo.unique_id = ''aman'')

10. Submit Student's Qualities (After the professor clicks Create button)

Netis Poudel has given these informations:

🥰

You've known this student for: 2 years
You've taught: DBMS
University: Tribhuvan University
University Deadline: March 22, 2023
Program Applied: BE
GPA: 3.88
Tentative Ranking: Batch Topper
Supervised Project: Peer to Peer File Sharing
Other projects: Mero Ghar

Show transcript

Show CV

Presentation skills:

Qualitiy:

Recommend:

Personal Qualities
☐ Leadership
☐ Hardworking
☐ Social
☐ Teamwork
☐ Friendly

Submit

Queries

- Read

  A. SELECT * FROM django_session WHERE (django_session.expire_date
    > ''2023-03-12 15:40:17.271736'' AND django_session.session_key
    = ''q8d1gavfqbfqmf1fkgfgsmdlicvttzs8'')

  B. SELECT * FROM auth_user WHERE auth_user.id = 1

  C. SELECT * FROM TeacherInfo WHERE TeacherInfo.unique_id =
    ''aman''

  D. SELECT * FROM StudentLoginInfo WHERE
    StudentLoginInfo.roll_number = ''076BCT099''

  E. SELECT * FROM StudentData WHERE StudentData.name = ''Netis
    Poudel''

  F. SELECT * FROM Paper INNER JOIN StudentData ON (Paper.student_id
    = StudentData.id) WHERE StudentData.name = ''Netis Poudel''

  G. SELECT * FROM Project INNER JOIN StudentData ON
    (Project.student_id = StudentData.id) WHERE StudentData.name =
    ''Netis Poudel''

  H. SELECT * FROM University INNER JOIN StudentData ON
    (University.student_id = StudentData.id) WHERE StudentData.name
    = ''Netis Poudel''

  I. SELECT * FROM Qualities INNER JOIN StudentData ON
    (Qualities.student_id = StudentData.id) WHERE
    "StudentData"."name" = ''Netis Poudel''

  J. SELECT * FROM Academics INNER JOIN StudentData ON
    (Academics.student_id = StudentData.id) WHERE StudentData.name
    = ''Netis Poudel''

  K. SELECT * FROM Files INNER JOIN StudentData ON (Files.student_id
    = StudentData.id) WHERE StudentData.name = ''Netis Poudel''

  L. SELECT * FROM TeacherInfo WHERE TeacherInfo.id = 1

- Update

  A. SELECT * FROM StudentData WHERE StudentData.std_id =
    ''076BCT099''

```
B. UPDATE Qualities SET leadership ='True, hardworking =True,
   social = True, teamwork = True, friendly = True, quality =
   ''sincere and hardworking'', presentation = ''outstanding'',
   recommend = ''strongly'' WHERE Qualities.student_id = 17
```

11. Generate a Letter (After the professor submits the student's qualities)

Letter of Recommendation

I would like to strongly recommend **Netis Poudel** for admission to the graduate program at your university. I have known Netis for about 2 years now as an undergraduate student in BE Engineering. Moreover, I was the supervisor for his final year project. I taught him DBMS.

I recall Netis as a sincere and hardworking student. In fact, he was the topper of his batch in BE Engineering. As an instructor and his supervisor too I had enough opportunity is observe his capabilities closely.

I was the supervisor in his project titled Peer to Peer File Sharing. I was quite impressed by his hardworking nature and learning capability. I supervised him in his project Mero Ghar. I could observe his keen interest and aptitude for research while working on the project.

I have noted his outstanding presentation skills while he presented his work at our department as well as in the conference. I have seen that he has good leadership capability and has a teamwork spirit. He is a very hardworking student who is always eager to learn. He is a well-spoken person with a friendly and gentle personality. He also has given his time to different social causes. He is very helpful and cooperative student. He eagerly handed over his project work to his juniors who wanted to further continue the research on the topic along with proper guidance and resources. I have also been impressed by his communication skills during project presentations and lectures.

I appreciate his technical and professional skills. Besides academics, he was also involved in several extra-curricular activities . He participated in various competitions organized in and off the campus. Unlike, most students who limit their project to an academic exercise, he actually deployed his project publicly in our server and maintained it. He has worked in some IT companies which, I believe, has further added to his technical skills and professional experience.

I am quite confident that Netis's skills coupled with academic capability will make him a good candidate for your university. Thus, I would highly recommend him for the graduate program at your esteemed university. Please feel free to contact me if further enquiry is required.

aman_shakya,
assistant professor,
Department of BCT Engineering
Pulchowk Campus, Institute of Engineering, Tribhuvan University
Phone: 9865429138
Mail: aman@gmail.com

Submit

Queries

A. UPDATE StudentData SET name = ''Netis Poudel'', email =
   ''076BCT099.netis@pcampus.edu.np'', professor_id = 1, std_id =
   ''076BCT099'', is_generated = True, years_taught = ''2 years'',
   is_pro = ''Yes'', subjects = ''DBMS'', is_paper = ''No'',
   intern = True WHERE StudentData.id = 17

12. Generated Letter

Letter of Recommendation

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aman_shakya,
assistant professor,
Department of BCT Engineering
Pulchowk Campus, Institute of Engineering, Tribhuvan University
Phone: 9865429138
Mail: aman@gmail.com