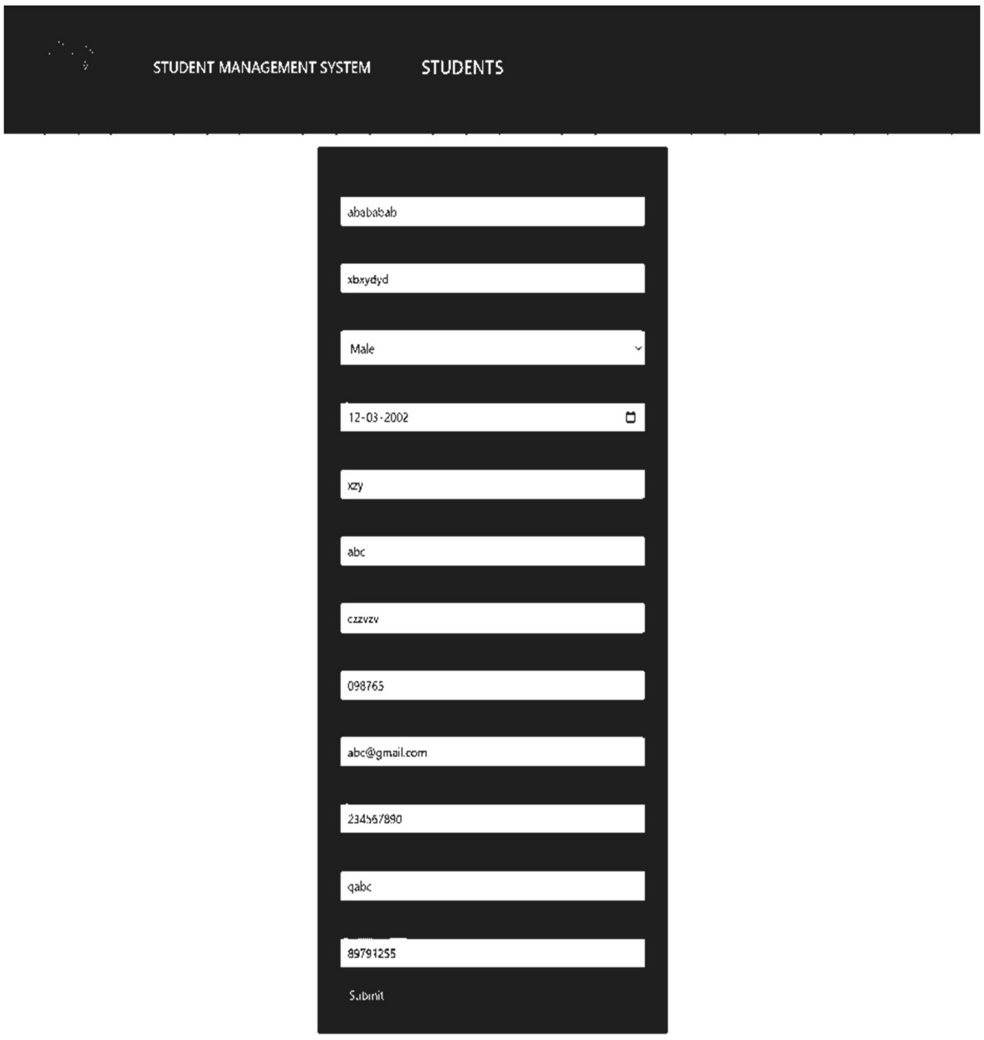
Lab#14(a) Implement Insert Operation to add new record of student in Student Information System

Final Outcome:



ababab
xbxydyd
Male
12-03-2002
xzy
abc
czzvzv
098765
abc@gmail.com
234567890
qabc
89791255

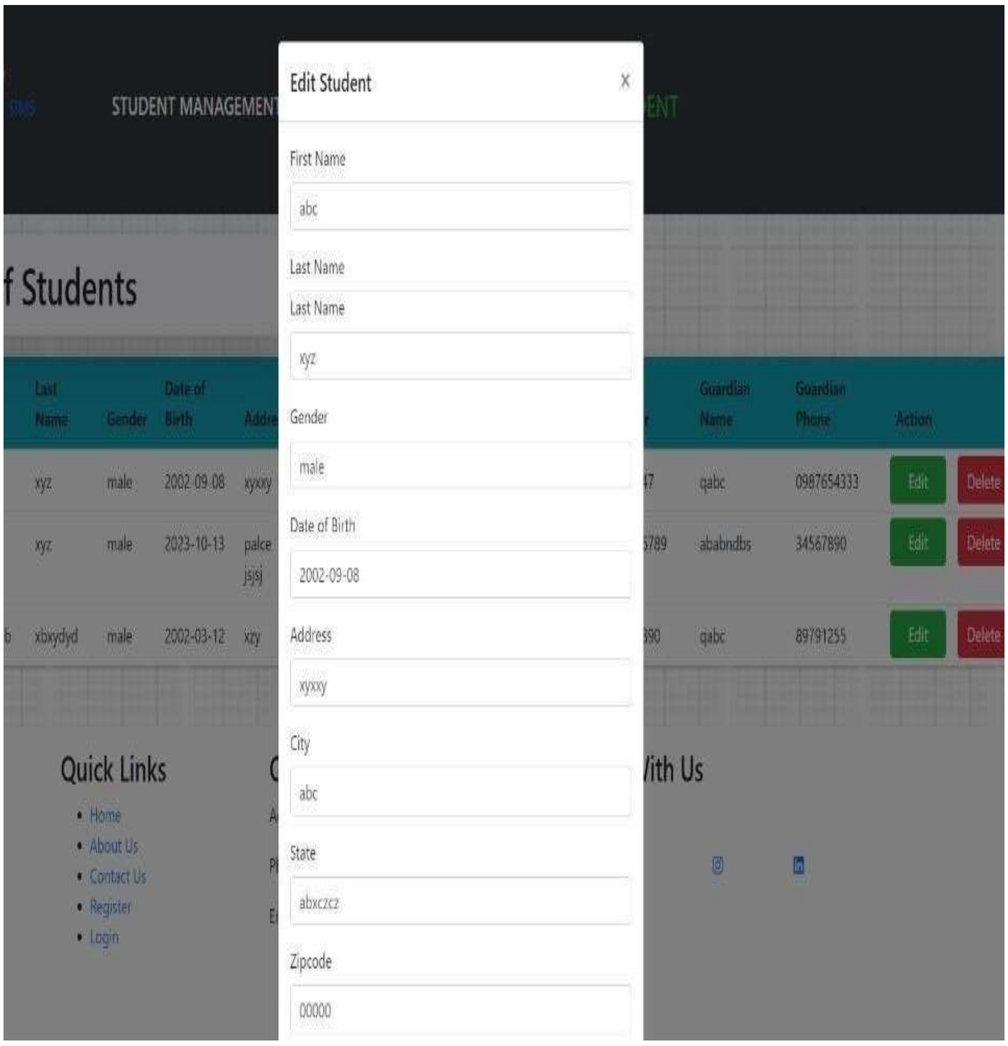
Lab #14(a)

Code Snippet:

```
// Route handler to create a new student
exports.createStudent = (req, res) => {
 // Extract student data from req.body and insert it into the SQLite database
  const {
    first_name,
    last_name,
    gender,
    date_of_birth,
    address,
    city,
    state,
    zipcode
    ,
    email,
    phone_number,
    guardian_name,
    guardian_phone,
  } = req.body;


  const stmt = db.prepare(
    "INSERT INTO students (first_name, last_name, gender, date_of_birth, address, city, state, zipcode,
email, phone_number, guardian_name, guardian_phone) VALUES (?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?)"
  );

  stmt.run(
    [
      first_name,
      last_name,
      gender,
      date_of_birth,
      address,
      city, state,
      zipcode, email,
      phone_numbe
      r,
      guardian_nam
      e,
      guardian_pho
      ne,
    ],
    (err) => {
      if (err) {
        console.error(err);
        res.status(500).send("Internal Server Error");
        return;

        res.redirect("/sims/all");
        }
        );

stmt.finalize();
};

//delete student from database exports.deleteStudent = (req, res) => { const id = req.params.id; const
stmt = db.prepare("DELETE FROM students WHERE id = ?");
stmt.run([id], (err) => {
if (err) {
console.error(err);
res.status(500).send("Internal Server Error"); return;
}

res.redirect("/sims/all");
});

stmt.finalize();
};
```

Lab#14(b) Implement Update Operation to modify any record of student in Student Information System

Final Outcome:



SIMS STUDENT MANAGEMENT

f Students

Edit Student ×

First Name
abc

Last Name
Last Name
xyz

Gender
male

Date of Birth
2002-09-08

Address
xyxxy

City
abc

State
abxczcz

Zipcode
00000

Last Name	Gender	Date of Birth	Addre	Guardian Name	Guardian Phone	Action
xyz	male	2002-09-08	xyxxy	qabc	0987654333	Edit Delete
xyz	male	2023-10-13	palce jsjsj	ababndbs	34567890	Edit Delete
xbxydyd	male	2002-03-12	xzy	qabc	89791255	Edit Delete

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Code Snippet:

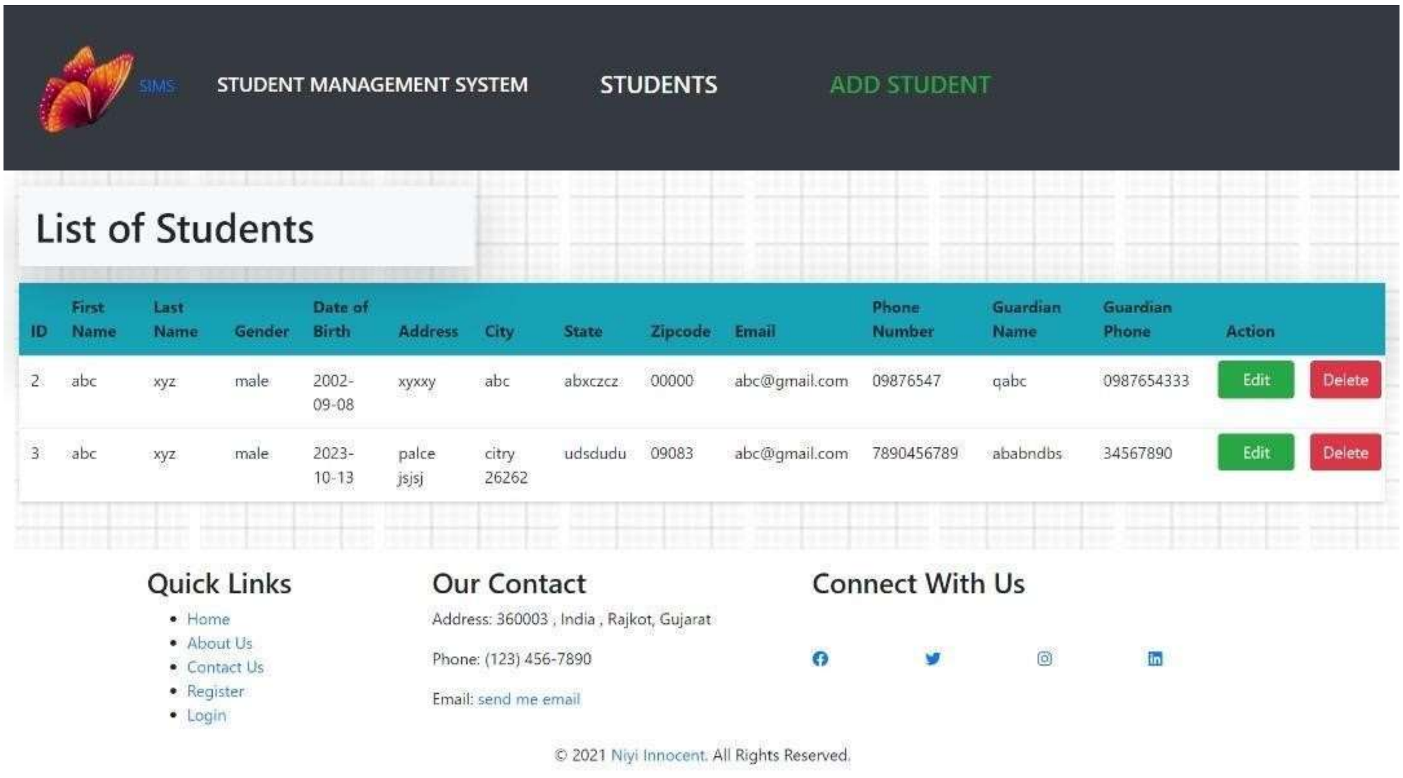
```
// Route handler to update a student by ID
exports.updateStudent = (req, res) => {
const studentId = req.params.id;

  const {
```

```
  first_name,
  last_name,
  gender,
  date_of_birth,
  address,
  city,
  state,
  zipcode,
  email,
  phone_number,
  guardian_name,
  guardian_phone,
} = req.body;

// Begin a transaction db.run("BEGIN
TRANSACTION", function (beginErr) { if (beginErr)
{
    console.error(beginErr);
    res.status(500).send("Internal Server Error");
    return;
  }

  const stmt = db.prepare(
    "UPDATE students SET first_name = ?, last_name = ?, gender = ?, date_of_birth = ?, address = ?, city
= ?, state = ?, zipcode = ?, email = ?, phone_number = ?, guardian_name = ?, guardian_phone = ? WHERE
id = ?"
  );

  stmt.run(
    first_name,
    last_name,
    gender,
    date_of_birth,
    address,
    city,
    state,
    zipcode
    ,
    email,
    phone_number,
    guardian_name,
    guardian_phone,
    studentId,
    (err) => { if (err) {
```

```
console.error(err);
// Rollback the
transaction in case
of an error
db.run("ROLLBACK
", (rollbackErr) => {
if (rollbackErr) {
console.error(rollba
ckErr);
}
res.status(500).sen
d("Internal Server
Error");
});
} else {
// Commit the
transaction
db.run("COMMIT",
(commitErr) => {
if (commitErr) {
console.error(com
mitErr);
res.status(500).sen
d("Internal Server
Error");
} else {
console.log("Studen
t updated
successfully.");
res.redirect("/sims
/all");
}
});
}
}
);

stmt.finalize();
});
};
```

Lab#14(c). Implement Delete Operation to remove any student from Student Information System.

Final Outcome:



List of Students

ID	First Name	Last Name	Gender	Date of Birth	Address	City	State	Zipcode	Email	Phone Number	Guardian Name	Guardian Phone	Action
2	abc	xyz	male	2002-09-08	xyxxy	abc	abxczcz	00000	abc@gmail.com	09876547	qabc	0987654333	Edit Delete
3	abc	xyz	male	2023-10-13	palce jsjsj	citry 26262	udsdudu	09083	abc@gmail.com	7890456789	ababndbs	34567890	Edit Delete

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Our Contact
Address: 360003 , India , Rajkot, Gujarat
Phone: (123) 456-7890
Email: send me email

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Code Snippet:

```
//delete student from database exports.deleteStudent = (req,
res) => { const id = req.params.id; const stmt =
db.prepare("DELETE FROM students WHERE id = ?");

 stmt.run([id], (err) => {
  if (err) {
   console.error(err);
   res.status(500).send("Internal Server Error");
   return;
  }

  res.redirect("/sims/all");
 });
```

Lab #14(c)

```
    stmt.finalize();
                                                  };
```