



National University
of computer and emerging sciences

ARTIFICIAL INTELLIGENCE

CS2005 DATABASE SYSTEMS

POINTS' SERVICE APPLICATION

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INTRODUCTION

Transport plays a very important role in driving economic and regional growth as it is closely linked to community activities. Therefore, transportation system implementation must be carried out effectively and efficiently. This means high accessibility, ample capacity, smooth, quick, easy accessibility and affordable rates. However, if you look closely, almost all cities in Pakistan have problems with traffic, especially public transport.

Points Service Application will be developed to automate transport services in university in order to facilitate students with their convenience.

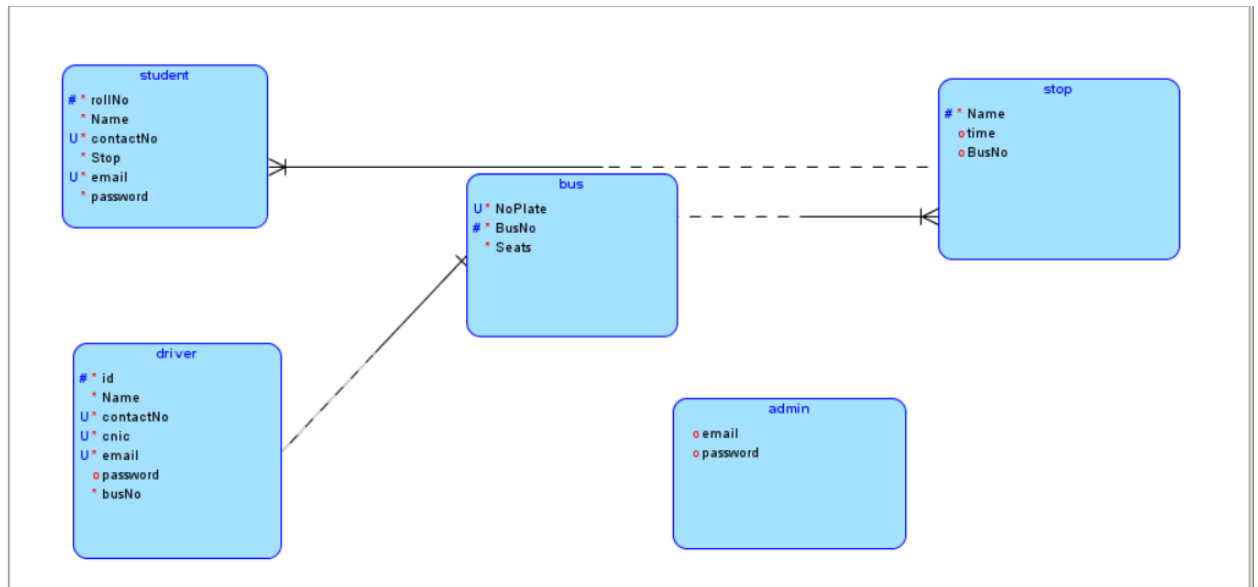
OBJECTIVE

- Even non-technical users can use the system effectively and effortlessly.
- Upgradable. Further improvements of the system are therefore possible.
- System maintains speed and accuracy.

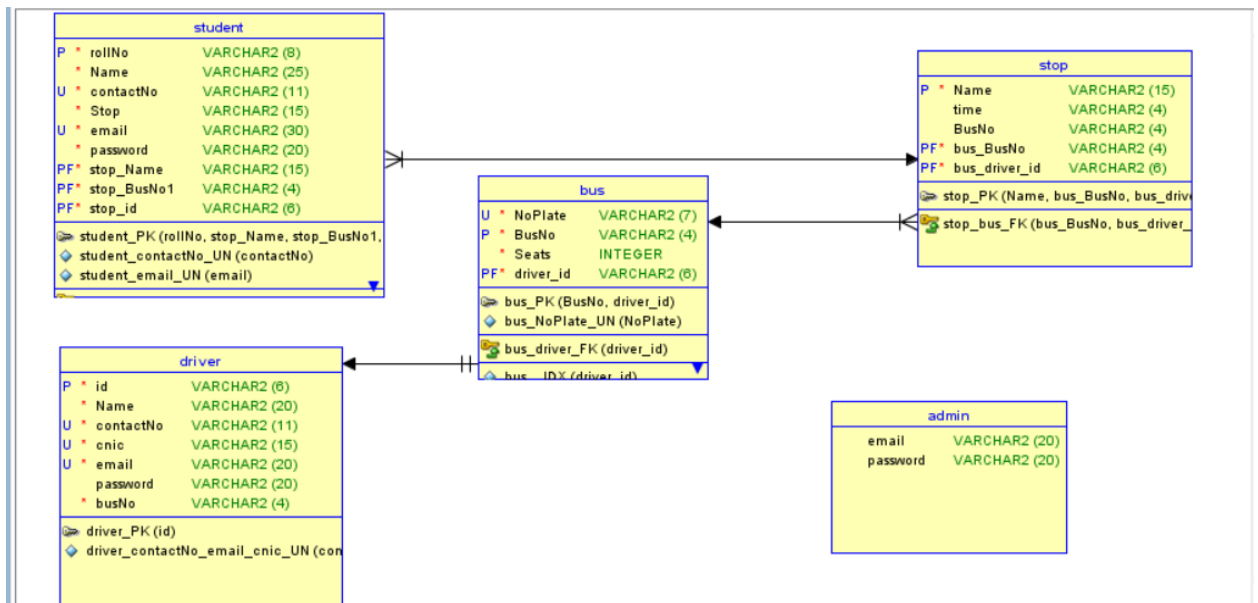
TOOLS AND TECHNOLOGIES

- Frontend: HTML, CSS, Javascript
- Backend: Php
- Database: My SQL

ENTITY RELATIONSHIP DIAGRAM



Logical Model



Relational Model

FEATURES

1. Login: Login as an Admin (Transport In-charge) or User (Student/Driver) in order to avail the facility.
2. Admin/Transport In-charge: In-charge is the purchaser of the software.
 - The in-charge must be given all privileges.
 - He should be able to manipulate all the records.
 - No other entity must be given the rights to update or insert new data.
 - Information related to each entity must be listed very properly.
 - Admin can view drivers of corresponding buses.
 - Admin can view the route of a particular bus.
 - Admin can view the number of students on a particular stop.
 - Search option available in order to update/delete any entity.
3. Students: Students are the users of the software.
 - Students must be able to track their points.
 - In case if they missed their points, they should alert drivers of the upcoming buses in their routes that they will hop on to that respective bus.
 - Students should be given access to view the contact number of drivers.
 - Students should also be able to see the Number plate of the bus for identification purposes.
4. Drivers: Drivers are also the users of the software.
 - Drivers can share live locations once the bus starts.
 - Drivers should be alerted if they have to stop the bus at any location which is not mentioned in their predetermined list of stops.
5. Other functionalities: Triggers are implemented in the program to handle the capacity of the bus if a new student avails the transport service or withdraws from it.

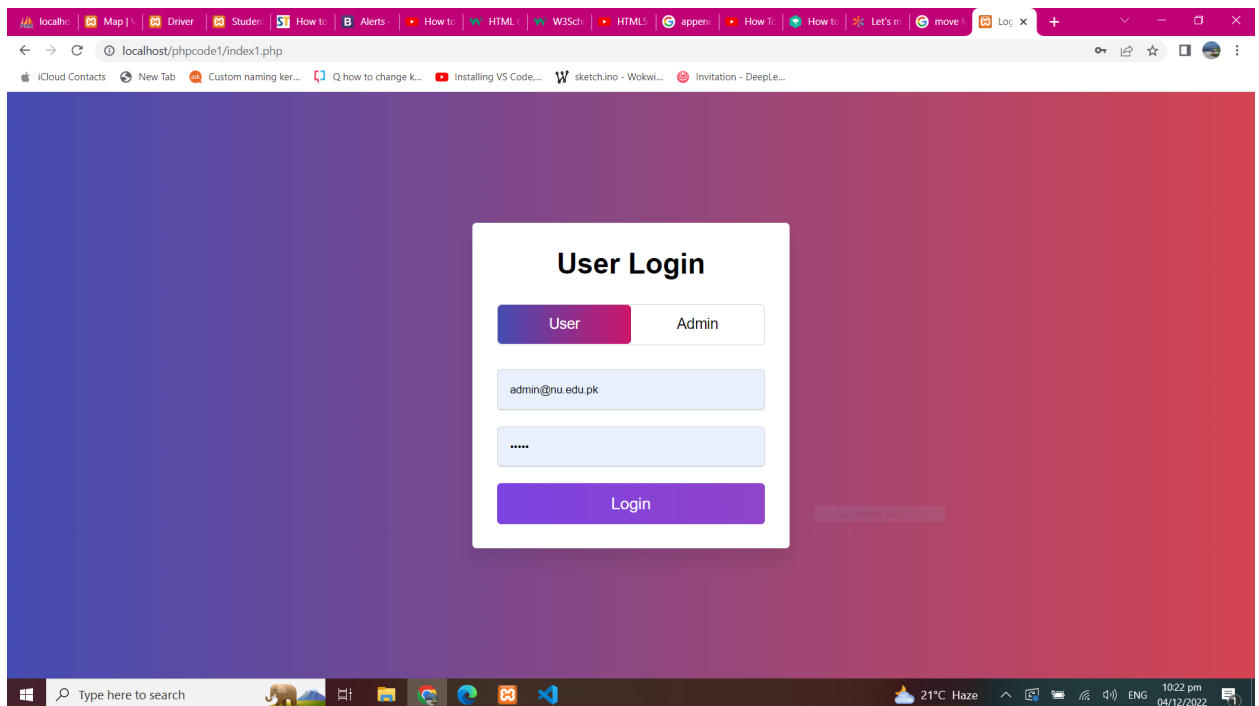
IMPLEMENTATION AND TESTING

1. DATABASE

Table	Action	Rows	Type	Collation	Size	Overhead
<input type="checkbox"/> admin	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_general_ci	16.0 KiB	-
<input type="checkbox"/> bus	Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_general_ci	32.0 KiB	-
<input type="checkbox"/> driver	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_general_ci	80.0 KiB	-
<input type="checkbox"/> stop	Browse Structure Search Insert Empty Drop	4	InnoDB	utf8mb4_general_ci	32.0 KiB	-
<input type="checkbox"/> student	Browse Structure Search Insert Empty Drop	7	InnoDB	utf8mb4_general_ci	48.0 KiB	-
5 tables Sum		13	InnoDB	utf8mb4_general_ci	208.0 KiB	0 B

☐ Check all With selected:

2. LOGIN PAGE



3. ADMIN MODULE

Students

Drivers

Stops

Buses

Routes

1A

Search

Stops	Time
Farooq e Azam	6.52
Serena	6.50

Drivers And Buses Info

Enter to search

Search

Driver's Name	Contact No	Bus	Seats Left
Asad	03001234567	1A	27

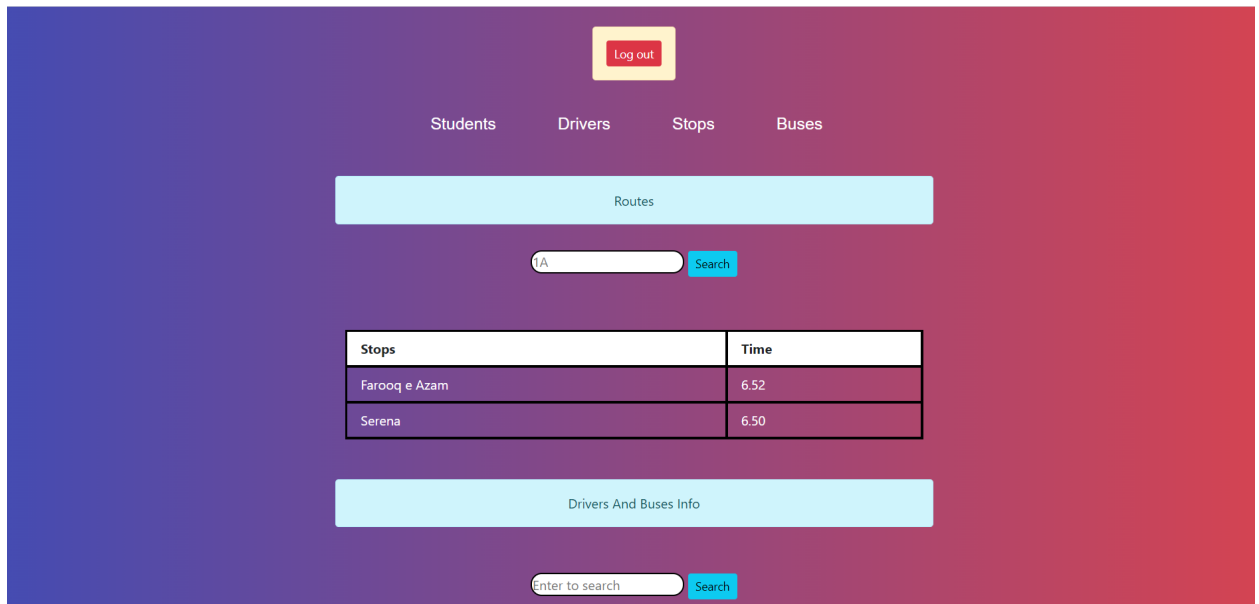
Students On Stop

Enter to search

Search

Stop	Number of Passengers
Malir Halt	1
Serena	1

After successful login



BUS MODULE

Buses			
Back	Search Bus <input type="text" value="Bus No"/>	Insert New Bus	
No Plate	Bus No	Seats	Operation
ABC-123	1A	27	Update Delete
ABC-321	2A	25	Update Delete
DEF-067	2B	26	Update Delete
BDL-348	3C	48	Update Delete
BCE-394	5B	60	Update Delete

View, update or delete bus details

INSERT NEW BUS

Number Plate:

Route No:

Capacity:

Submit

Inserting new bus

DRIVER MODULE

Drivers

Back

Search Driver

Insert New Driver

ID	Name	Contact No	CNIC	Bus No	Email	Operation	
1	Asad	03001234567	4220000123000	1A	asad@nu.edu.pk	Update	Delete

View, insert, update or delete driver details

STOP MODULE

Back

Search Stop

Insert New Stop

Name	Pickup Time	Route No	Operation	
DC Office	6.55	3C	<div>Update</div>	<div>Delete</div>
Farooq e Azam	6.52	2A	<div>Update</div>	<div>Delete</div>
Johar	6.55	5B	<div>Update</div>	<div>Delete</div>
Malir Halt	7.19	1A	<div>Update</div>	<div>Delete</div>
Serena	6.50	2A	<div>Update</div>	<div>Delete</div>

View, update or delete stop details

INSERT NEW STOP

Stop Name:

Pickup Time:

Route:

Submit

Inserting a new stop

STUDENT MODULE

Back

Search Student

Insert New Student

Roll No	Name	Contact No	Stop	Email	Operations
20K-0234	Mannahil Miftah	3145327822	Serena	k200234@nu.edu.pk	<div>UpdateDelete</div>
20K-0351	Alishba Subhani	3029449444	Malir Halt	k200351@nu.edu.pk	<div>UpdateDelete</div>
22K-4777	Amna mudabbir	3145489376	Serena	k224777@nu.edu.pk	<div>UpdateDelete</div>

View, update or delete student details

INSERT NEW STUDENT

Student Name:

Roll No:

Contact No:

Stop:

Email Address:

Password:

Submit

Inserting a new student

Back

Search Student

Insert New Student

Roll No	Name	Contact No	Stop	Email	Operations
20K-0234	Mannahil Miftah	3145327822	Serena	k200234@nu.edu.pk	<div>UpdateDelete</div>

Searching student's record

Student Name:

Mannahil Miftah

Roll No:

20K-0234

Contact No:

3145327822

Stop:

Serena

Email Address:

k200234@nu.edu.pk

Password:

••••••


Update

Updating student's record

4. USER MODULE

a. DRIVER

Driver's ID	Stop Name	Student ID	Operation
1	Malir Halt	20K-0351	<input type="button" value="Picked"/>



After successful login

Driver's ID	Stop Name
1	Johar
1	Malir Halt

Driver to stop the bus at these places which are not mentioned in his route

b. STUDENT

Log out

Drivers And Buses Info

Enter to search

Search

Driver's ID	Driver's Name	Contact No	Bus	No Plate	Operation
1	Asad	03001234567	1A	ABC-123	<div>Live Location</div>

Routes Info

Stop Name

Search

Stop Name	Time	Route
DC Office	6.55	3C
Farooq e Azam	6.52	2A
Johar	6.55	5B
Malir Halt	7.19	1A
Serena	6.50	2A

Alert Driver To Stop For You

Driver ID

Your Roll No (19K-1234)

Stop Name

Alert

After successful login

Alert Driver To Stop For You

1

20K-0351

Johar

Alert

51@nu.edu.pk.%27

k...



localhost says

Driver Notified!!!

OK

Alerting Driver

CONCLUSION

The main purpose of making this project is to make the work easier and less time consuming. With the help of this project, the data can be stored, retrieved and updated easily. We found ourselves much evolved at the end as far as the database concepts are concerned.