Stamford University Bangladesh

Online Rickshaw Booking Management System

Course Title: Software Engineering sessional

Course Code: CSI 332

Final Report

Group Name: Family Matters

Submitted To:

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Introduction:

Online Rickshaw management system gives the opportunity to the general users/visitors to book a rickshaw immediately for anytime in anywhere. By using this web application, users will be able to hire rickshaw for going from staring place to destination place at their fixed time and date. For hire a rickshaw, users confirm their personal information such as name; email number and mobile number for confirmation . If any user thinks about to go anywhere by using rickshaw, they can get whole features in web application.

Online Rickshaw Management system is aimed at reducing paper for the rickshaw industry and hence improving its efficiency and speeding up of all processes.

Motivation for this Project:

This project is dedicated to:

- Model the existing Rickshaw Reservation system.
- provide comprehensive set of features to enhance to operational limits. Evaluate their performance in different scenarios.
- Suggest modifications for greater efficiency.

The project is suggested by Travel Agent. The project taken for the purpose that there is lot of problem related to rickshaw route. Timing booking rickshaw, trip details, rickshaw details, rickshaw driver details ,More importantly to know the running time of a particular rickshaw and we want to manipulate and stores these information successfully.

Project Goals:

The main purpose of this study is to automate the manual procedures of online

rickshaw for any journey made through a transport company. This system is said to be an automatic system and customers can select rickshaw by themselves. Specifically, objectives of this project will consist of :-

(i)Providing a web-based rickshaw function where a customer can book rickshaw through the online system without a need to queue up at the road to hire a rickshaw.

(ii) Enabling customers to check the availability of rickshaws though online.

(iii)Customers can easily reserve rickshaw when needed.

(iv) Ability of customers to cancel their reservation.

(v) Admin user privileges in updating and canceling payment, route and vehicle records.

Project Feasibilities & Requirements:

- Programming Language: C#.
- Style: CSS
- IDE: Bracket, Notepad++
- Database: MySQL
- Operating System: Windows/Linux

Implementing this project idea is supportive and can improve the design, performance and greater usability. The task of performance evaluation of different database design, for efficiency is in the spirit usability. The task of performance evaluation of different database design, for efficiency is in the spirit.

1.System Feasibility:

The assessment is based on an outline design of system requirements ,to determine whether the company has the technical expertise to handle completion of the project.When writing a feasibility report, the following should be taken to consideration.

- A brief description of the business to assess more possible factors which could affect the study.
- The part of the business being examined.
- The human and economic factor.
- The possible solutions to the problems.

2. Operational Feasibility

Operational feasibility is a measure of how well a proposed system solves the problems, and takes advantage of the opportunities identified during scope definition and how it satisfies the requirement identifies in the requirements analysis phase of system development . The operational feasibility assessment focuses on the degree to which the proposed development projects fits in with the existing business environment and objectives with regard to development schedule , corporate culture, and existing business processes.

3. Economic Feasibility:

The purpose of the economic feasibility assessment to determine the positive economic benefits to the organization that the proposed system will provide. It includes quantification and identification of all the benefits expected. This assessment typically involves a cost/ benefits analysis.

4.Technical Feasibility:

The technical assessment is focused on gaining an understanding of the present technical resources of the organization and their applicability to the expected needs of the proposed system. It is an evaluation of the hardware and software and how it meets the need of the proposed system.

Cost Benefit Analysis:

- **Client Sided Cost:**

❖ Internet bill will be fixed but electricity bill will vary from month to month as per usage.

❖ Repair cost may be added if any hardware or equipment is not functional or damaged

❖ Various costs may appear during the project.

- **Client Sided Benefit:**

❖ Web based interface to communicate with the users easily and efficiently.

❖ Customer will easily booking a rickshaw in emergency.

❖ Customer satisfaction can be achieved very professionally.

- **Developer Sided Cost:**

❖ Programmer given enough time.

❖ Internet bill and electricity bill will be provided.

- **Developer Sided Benefit:**

❖ As developers this project will be a new experience for us.

❖ Solving a real life problem will boost us in the upcoming projects.

Risk Analysis:

❖ Extra database must be initialized for back up.

❖ Whole project process will be kept in cloud (Dropbox).

❖ Security of the database & registration process will be top priority.

❖ Timing is very valuable for this project. 12 weeks will be tightly scheduled to perform the task successfully before the deadline.

❖ Some extra hardware's would be necessary in case of emergency.

Interview Gathering Objectives:

- ❖ Interviews questions.
- ❖ Easily track the information of all users.
- ❖ Initialize the problem of time management.
- ❖ Facility required for the passenger.
- ❖ Understanding the client and organizer opinions.
- ❖ Create DFD (Data Flow Diagram) & Use case diagram.

For information gathering we have chosen three methods:

1. **Interviewed a team member from Hackers:**

- 6 Open ended question.
- 4 Close ended question.

2. Used Questionnaires to take survey from users:

- There were 9 specific questions in the survey.

3.**Investigation:**

- Quantitative

- **Interview Information:**

Author:	**Date:**	**Time:**	**Duration:**
● Anamika Goswami ● Parvez Ahmed Shopnil ● Romana Khondoker	18.09.19	05:30 pm	4 Minute

Participants:	**Comments:**
● Nahid Hasan Munna ● Mostak Ahmed ● Abu Adnan Joy ❖ **Team: Hackers**	It is an Online based booking system. This system will help the general people a lot.

Reason For Selecting the Professional:

Team Hacker is one of the team who has some ideas about this project. They worked before this type of project. So, we think they can give us some ideas.

Total Interview Procedure:

1. What difficulty are you experiencing in your system?

Ans: The time consuming process facing trouble problems is the main problem in this system.

2. What is the purpose of reservation system?

Ans: The purpose of the reservation system is easily booking, it can save time and less trouble

3. Will there be any report or statistic generated daily?

Ans: Computerized summary reports, trips of the day how many passengers about the rickshaw and the amount collected for the day.

4. If there is a single system combining all the rickshaw operators activities, do you think it will benefit the public?

Ans: Yes, it will benefit the public.

5. Do you think by having a collaborated Online Rickshaw Ticketing System web portal will case the ticketing process in the operation unit?

Ans: Yes, a collaborated online rickshaw ticketing system will case the ticketing process.

6. Does booking online cost you more?

Ans: The price of the booking is exactly what I would not from the rickshaw operator, However they do charge a nominal service free.

7. What more benefits you want to get from such a system?

Ans: System should be much smoother online-based communication media between the authority and the customer and the system should operator 24/7.

8. How can you get a returned in case you cancel your booking?

Ans: I call their call center and confirm for cancellation,this is the process of cancellation.

9. Do you prefer bKash for payment system?

Ans:Yes.

10.Is this system solve the traffic problem?

Ans:Yes,may be it can.

Questionnaire (Users):

The online rickshaw booking system is an online-based web site. We make some questionnaire's to know what the general user thinks about this online-based website.

https://forms.gle/dutPHKjK6pQYfQZz9 is the link to all questionnaires.

Which profession are you from?

- ○ student
- ○ employee
- ○ Other: _____

What is your view online rickshaw booking?

- ○ good
- ○ not good
- ○ Other: _____

Do you think clients would benefit from online rickshaw booking system?

- ○ Yes
- ○ No
- ○ Maybe

what kind of booking system you prefer?

- ○ online
- ○ analog

Do you think online booking system is safe?

- ◯ Yes
- ◯ No

Have you ever booked rickshaw in online?

- ◯ Yes
- ◯ No

What do you think this system is usable?

- ◯ yes
- ◯ No
- ◯ may be

Which method would you like to choose for payment?

- ◯ mobile banking
- ◯ Other: _____

Are you satisfied with payment system?

- ◯ Yes
- ◯ No

SUBMIT

Investigation:

- Cycle rickshaws are the most popular modes of transport in Bangladesh.
- In Bangladesh the capital city Dhaka, known as the "Rickshaw Capital of the World".
- They were introduced here about 1938.
- By the end of the 20th century there were 300,000+ cycle rickshaws in Dhaka.
- Approximately 400,000 cycle rickshaws run each day.
- Rickshaw is the only kind of vehicles that can be driven in many neighborhoods of the city with narrow streets and lanes.

However, increasing traffic congestion and the resulting collisions have led to the banning of rickshaws on many major streets in the city. Urban employment in Bangladesh also largely depends on cycle rickshaws. Because of inflation and unemployment in the rural areas, people from villages crowd in the cities to become rickshaw drivers locally called the *riksha-wala* .[Source from Wikipedia]

Revised Requirement Analysis:

After a detailed analysis of the interview of the professional and the questionnaires answered by the people from survey, we have revised our requirement analysis. The followings have to be appended to our initial requirement analysis:

- Most of the people prefer Online booking system more than Analog booking system.
- Most are thinking the system is usable & safe.
- Most of the people chose bKash for payment.
- Online booking cost will be normal.
- Both user & professional think this system will useful for public.

Data Flow Diagram (DFD):

- **Activity List:**

Booking Management	Rickshaw &rickshaw puller information	Payment Management	Administration
Users can add &cancel booking.	Admin manages Rickshaw puller's information & details.	Admin can be fixed ride cost depends on source to destination.	Admin can add, delete and update the content process.
Admin can control booking management.	The service provider can be added,update, delete the rickshaw puller information	The service provider makes confirm the ride cost.	Admin manages the route management process.
Provide user booking details to the service provider.	Users can select rickshaw type and admin ensure to the user availability of a rickshaw puller.	Users will pay their ride payment.	Admin can manage booking details and request a ride to the service provider.
	Rickshaw puller will provide the ride service to the users and user will benefit a lot		service provider manage rickshaw puller riding process system.

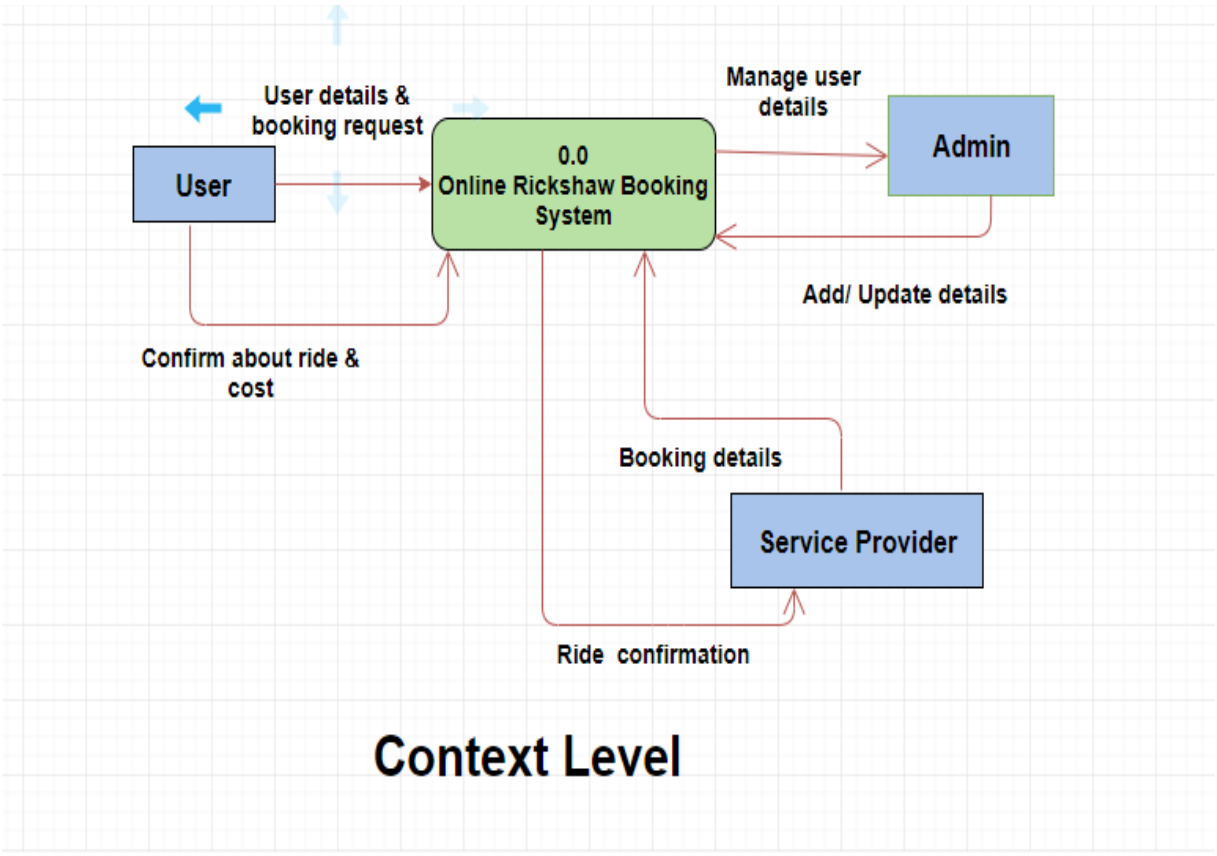
Main Process: Online Rickshaw Booking Management System.

Sub Process: Booking Management,Rickshaw & Rickshaw puller information.

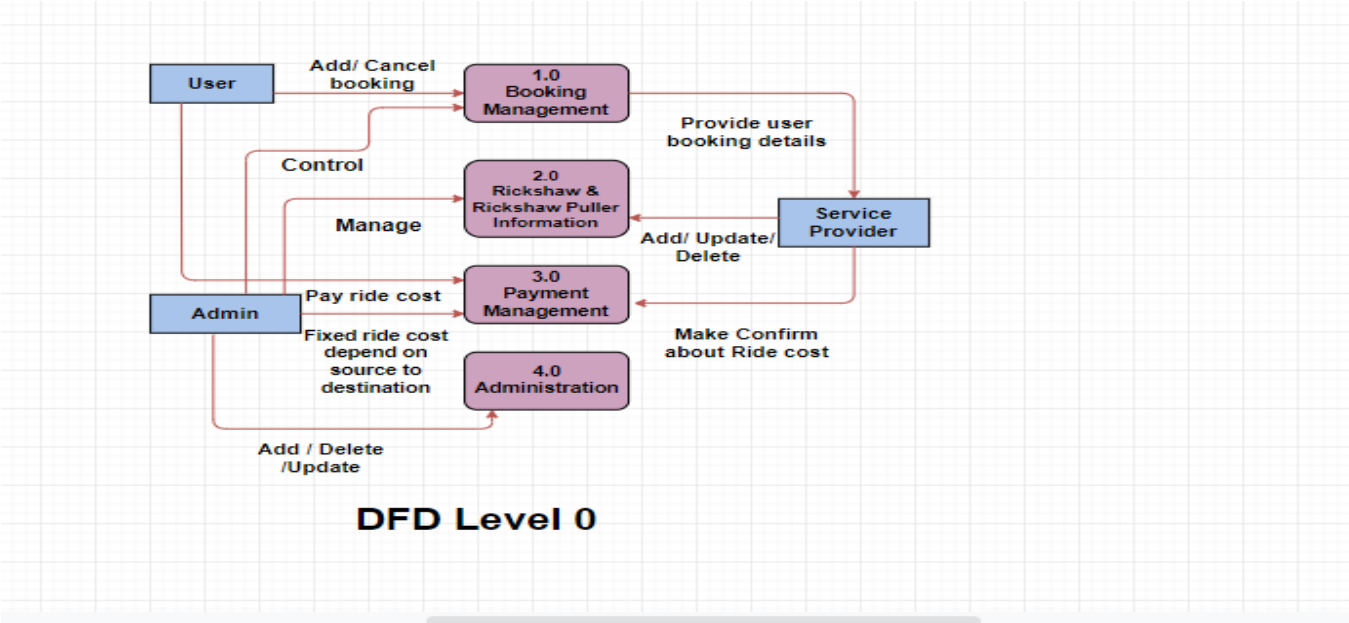
Entity: User,Admin.Service provider.

Database:Route _Info, Rickshaw_Info, Driver_Info, Rickshaw puller_Info, Content_Info,Time ridding_Info.

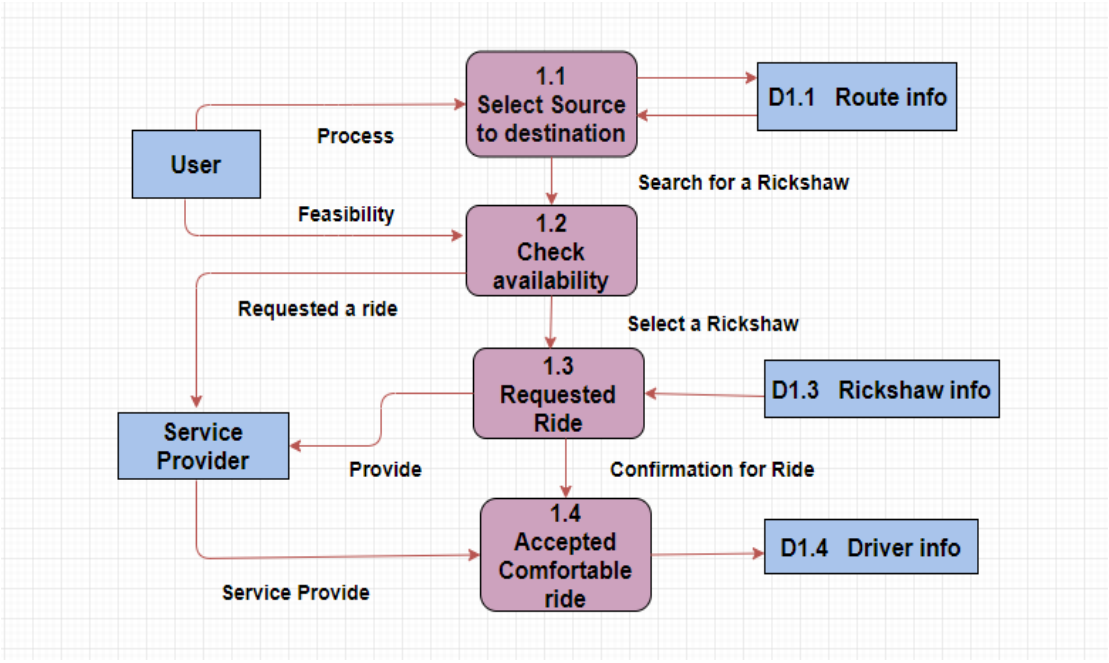
DFD - Context Level:

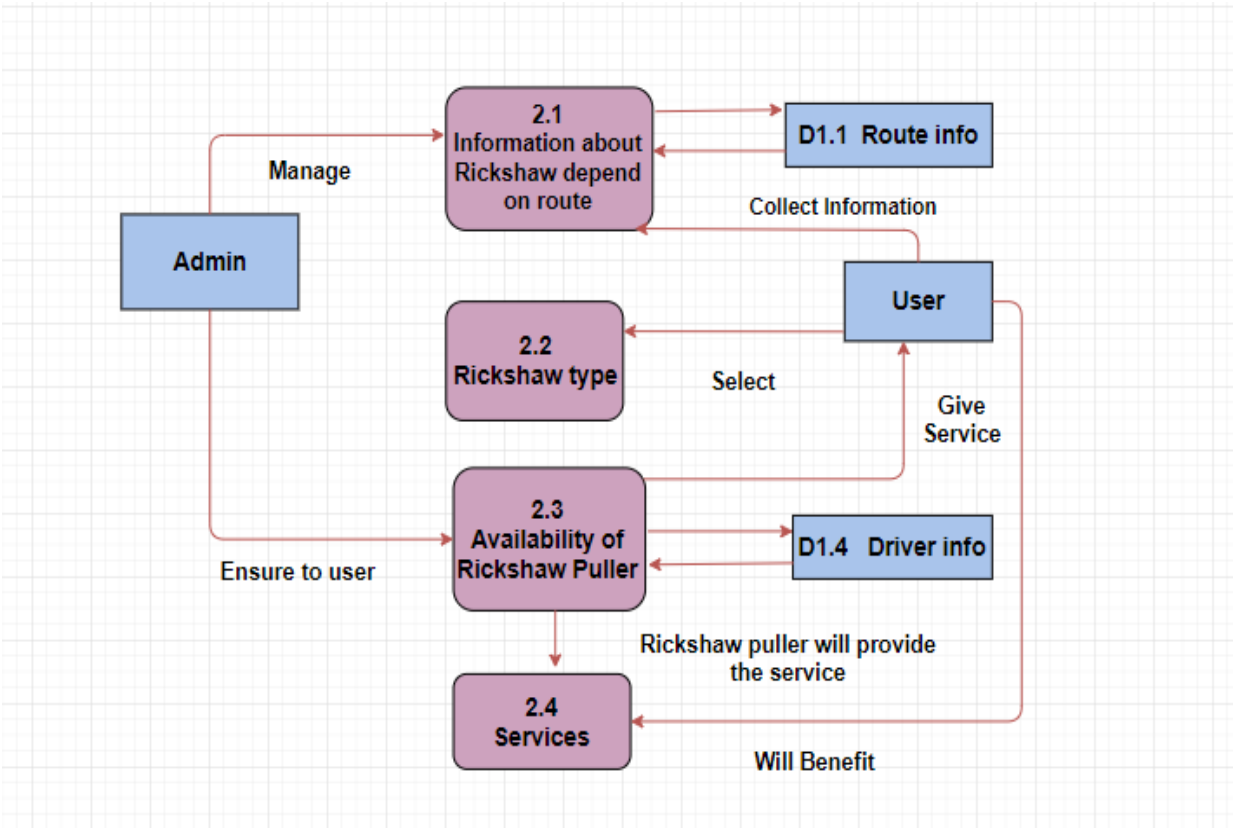


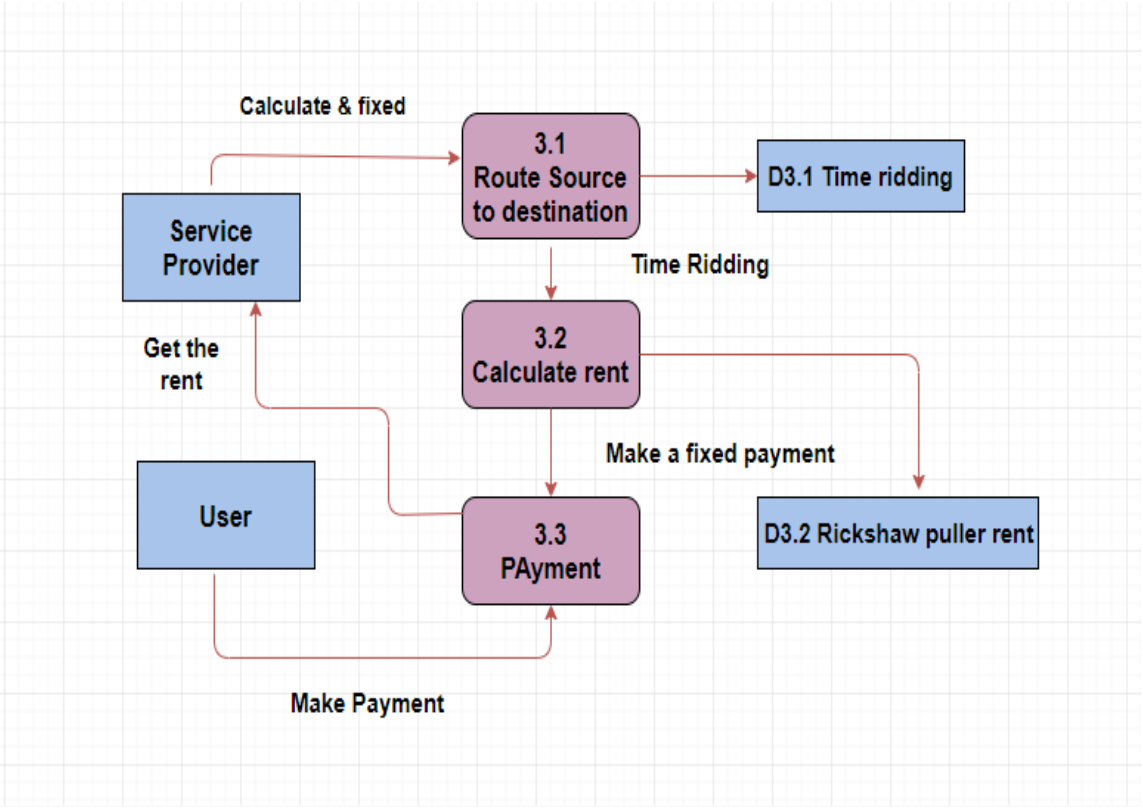
DFD – Level 0:

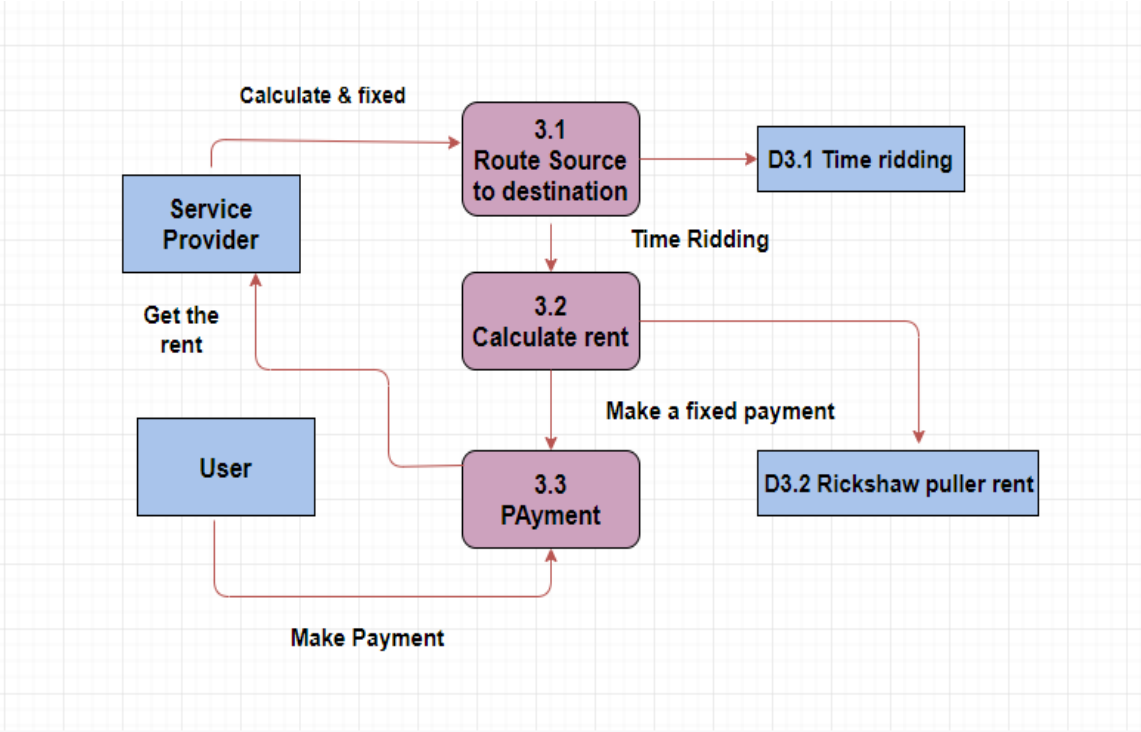


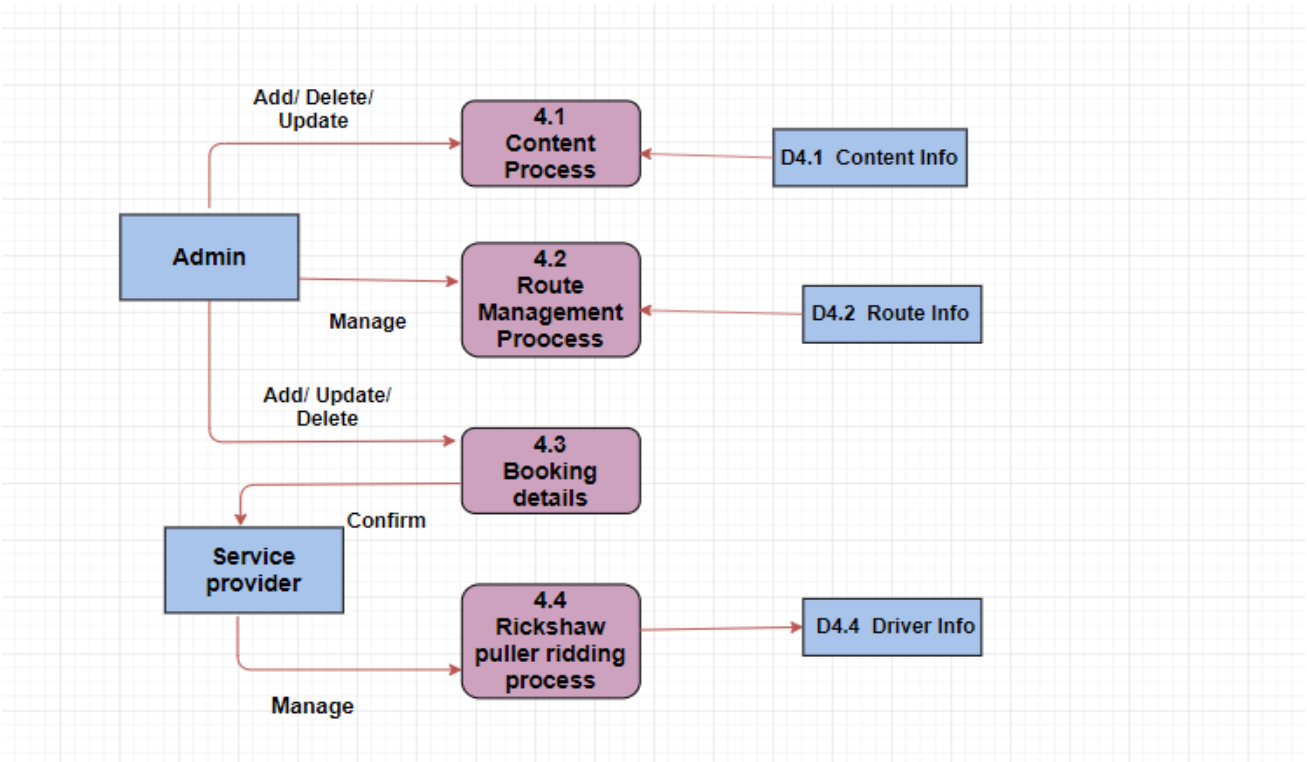
DFD - Level 01:




2.1
Information about Rickshaw depend on route
D1.1 Route info
Manage
Collect Information
Admin
User
2.2
Rickshaw type
Select
Give Service
2.3
Availability of Rickshaw Puller
D1.4 Driver info
Ensure to user
Rickshaw puller will provide the service
2.4
Services
Will Benefit


Calculate & fixed
3.1
Route Source to destination
D3.1 Time ridding
Service Provider
Time Ridding
3.2
Calculate rent
Get the rent
Make a fixed payment
User
3.3
PAyment
D3.2 Rickshaw puller rent
Make Payment

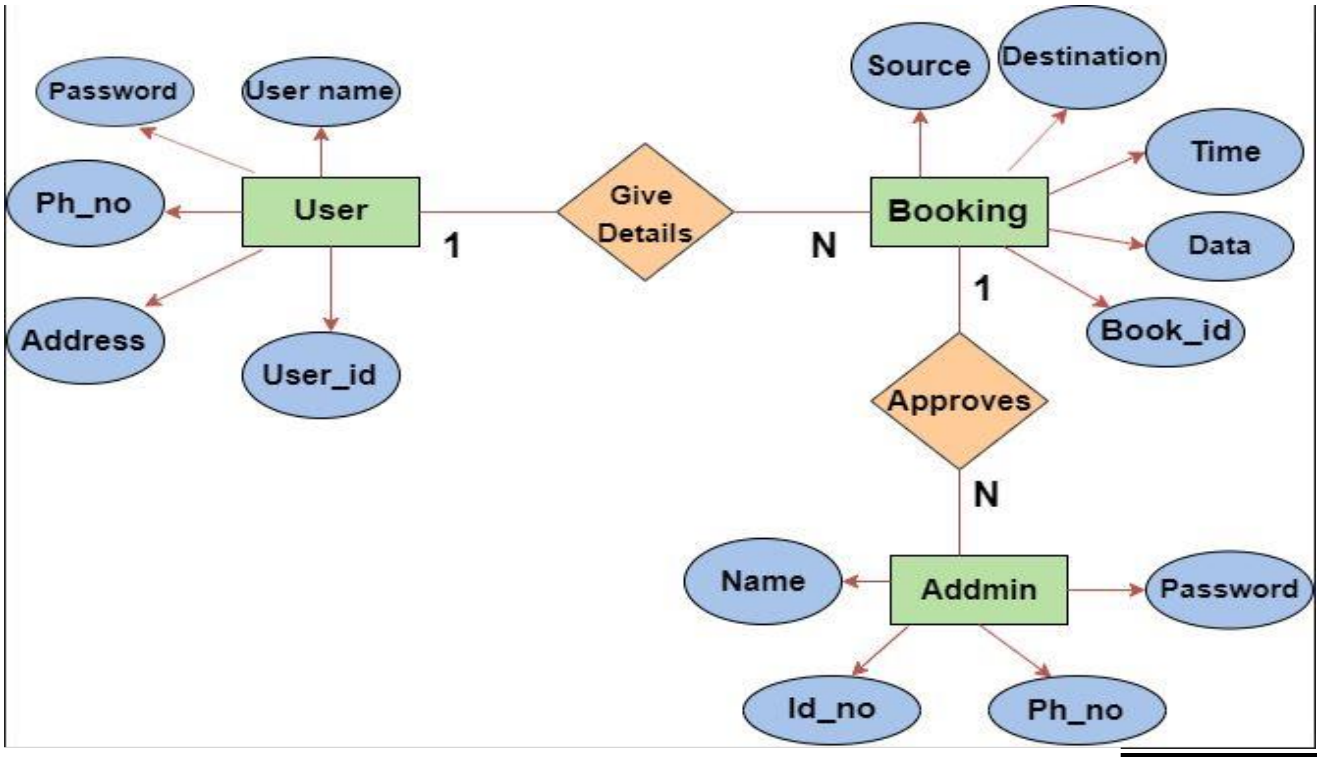

Calculate & fixed
3.1
Route Source
to destination
D3.1 Time ridding
Service
Provider
Time Ridding
3.2
Calculate rent
Get the
rent
Make a fixed payment
User
3.3
PAyment
D3.2 Rickshaw puller rent
Make Payment


Add/ Delete/
Update
4.1
Content
Process
D4.1 Content Info
Admin
4.2
Route
Management
Proocess
D4.2 Route Info
Manage
Add/ Update/
Delete
4.3
Booking
details
Confirm
Service
provider
4.4
Rickshaw
puller ridding
process
D4.4 Driver Info
Manage

Process Decomposition(DFD):

Context Level	Level 0	Level 1
Online Rickshaw booking management system.	1.0 Booking management	1.1 select source to destination.
		1.2 Check availability.
		1.3 Requested ride.
		1.4 Accepted comfortable ride.
	2.0 Rickshaw & rickshaw puller information.	2.1 Information about rickshaw depend on route.
		2.2 Rickshaw type.
		2.3 Availability of rickshaw puller.
		2.4 Services
	3.0 Payment Management..	3.1 Route source to destination.
		3.2 Calculate rent
		3.3 Payment
	4.0 Administration.	4.1 Content process
		4.2 Route management process
		4.3 Booking details.
		4.4 Rickshaw puller riding process.

Entity Relation Diagram:



Summary of the Project:

Online Rickshaw Reservation System is a Web-based application that works within a centralized network. This project presents a review on the software program "Online Rickshaw Reservation System" as it should be used in a Rickshaw transportation system, a facility that is used to reserve seats, cancellation of reservation and different types of route inquiries used on securing quick reservations. This software is built for managing and computerizing the traditional database, booking rickshaw easily. It maintains all customer details, rickshaw details, reservation details. The software achieved is capable of improving the customer hand and relationship management in ITC operations. It is recommended that despite the present functionality of the designed software, additional functionality such as the use of E-mail to send confirmation and notifications to the customer and an online payment or cash to cash should be implemented into the system. Furthermore, other operations such as the courier services should also be integrated to enhance the system.

Bench-marking:

Name	ID	Contribution
Anamika Goswami	CSE06307384	35%
Parvez Ahmed Shopnil	CSE 063 07391	30%
Romana Khondoker	CSE06307472	35%

Conclusion:

This system provides online reservation for rickshaw. This system is user-friendly and accurate. This is the full report of the the "Online Rickshaw Booking Management System". The full report will aslo help us in future.