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Ministry of Human Resource Development, Government of India

CATCH UP CAB

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

A MINI PROJECT REPORT

Submitted by

P.SAHITHYA

USN: 1NH18CS133

In partial fulfilment for the award of the degree of

BACHELOR OF ENGINEERING

IN

COMPUTER SCIENCE AND ENGINEERING

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Certificate

This is to certify that the mini project work titled

CATCH UP CAB

Submitted in partial fulfilment of the degree of Bachelor of Engineering

P.SAHITHYA

USN: 1NH18CS133

DURING

ODD SEMESTER 2020-2021

COURSE CODE: 20CSE59

Signature of Reviewer   Signature of HOD

SEMESTER END EXAMINATION

Name of the Examiner   *Signature with date*

1.___________________________   __________________________

2.___________________________   ____________________________

ABSTRACT

The main goal of Catch up cab is to book a cab in an easier way. This is mainly based on the website apps for which we can get a cab.The project title Catch up cab is a type of vehicle for hire with a driver used by a single or group of passenger. Catch up cab is a web based platform that allows your customers to book their cab. The platform should offer an administration interface where the cab company can manage the content, and access all bookings and customer information.

The main purpose of the project is to reduce the time consumption by the people. These projects reduces the manual errors involved in the catch up cab database process and make it convenient for the customers to access the database as when they require which can insert the details of the customer and they get the finial receipt.

ACKNOWLEDGEMENT

The satisfaction and euphoria that accompany the successful completion of any task would be impossible without the mention of the people who made it possible, whose constant guidance and encouragement crowned our efforts with success.

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P.SAHITHYA

(1NH18CS133)

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CHAPTER 1

INTRODUCTION

Catch up cab specializing in Hiring cabs to customers. It is an online system through which customers can view available cabs; register the cabs, view profile and book cabs. Cab booking service is a major transport service provided by the various transport operators in a particular city. Mostly peoples use cab service for their daily transportations need. The company must be a registered and fulfils all the requirements and security standards set by the transport department. A Cab Booking/Hiring is a system that can be used temporarily for a period of time with a fee. The individual who want to hire/rent a car must first contact the cab hiring company for the desire vehicle. This can be done online. Here the traveller can book a cab/ taxi/ car by viewing all the cab details and pricing details available, according to selected city and area. It is the reliable service provided to both customers and travel agencies. This provides service with well-conditioned new vehicles, with experience drivers for a happy journey of the customers.

1.1 PROBLEM DEFINATION

The main objective of this mini project is to develop an application that will have the following functions: -

- Basically, mini project helps us to explore and strengthen the understanding of fundamentals through practical application of theoretical concepts.
- It also helps us to boost your skills and widen your horizon of thinking.
- It helps the beginners to do larger projects in their career.
- It is helpful to design our algorithm.
- Better learning of the coding language.
- To implement the concepts and learn to implement them properly.

1.2 OBJECTIVES

Catch up cab is a web based platform that allows your customers to book their taxi's and executive taxis all online from the comfort of their own home or office. The platform should offer an administration interface where the taxi company can manage the content, and access all bookings and customer information. Cab booking service is a major transport service provided by the various transport operators in many of the cities. Mostly peoples use cab service for their daily transportations need.

The main aim of Catch up cab Mini DBMS project is to rent cab and get payments from respective clients. We aim to demonstrate the use of create, read, update and delete MySQL operations through this project. The project starts by adding a detail of the customer who books the cab and by adding details of driver using the cab added. Booking scene is where customers can book a taxi to get the desired location and it gives the receipt to the customer.

1.3 METHODOLOGY TO BE FOLLOWED

The main objectives of this project are:

1. It helps us to get quick cab at your place.
2. It makes easier so we can get quick services as soon as possible
3. To keep the information of the customer
4. It is used to record the details of various activities of the user
5. The main objective is to achieve high level of customer satisfaction by providing efficient service.

1.4 EXPECTED OUTCOMES

The output of the system is displayed on the console during a formatted manner. The output may attend a file (file style already explained).

1) Login page:

   User name, password

2) Catch up cab details:
   - Customer details
   - Booking details
   - Receipt

CHAPTER 2:

REQUIREMENT SPECIFICATIONS:

2.1 HARDWAREREQUIREMENTS

Processor	: Any Processor above 500 MHz
RAM	: 512Mb
Hard Disk	: 10 GB
Input device	: Standard Keyboard and Mouse
Output device	: VGA and High Resolution Monitor

2.2 SOFTWARE REQUIREMENTS

- Operating system : Windows XP
- Front End : ASP.Net 2.0
- Server : Internet Information Services
- Database Connectivity : ODBC Sources (with SQL Server)

CHAPTER 3

PYTHON FUNDAMENTALS

What is Python?

Python is a scripting programming language known for both its simplicity and wide breadth of applications.
For this reason it is considered one of the best languages for beginners. Used for everything from Web Development to Scientific Computing (and SO much more), Python is referred to as a "general purpose" language by the greater programming community.

Many Python programmers (aka "Pythonistas") love this language because it maintains a certain philosophy of best practices, described in Tim Peter's famous "Zen of Python". There is a large Python community both off and online that is welcoming and supportive of beginners, and you can find a plethora of additional materials in the resources section of this guide.

The Python fundamental consists of basic building blocks of Python programming language. And it is basically divided into the following categories.

- Statements
- Indentations
- Comments
- Variables
- Constants
- Tokens

1. Statements:

They are logical instructions that interpreter can execute and read, it can also be both single and multiline.
The two categories of the Python Statements are:

- Expression Statements
- Assignment Statements

Expression Statement: By the help of expression statements, we can perform the operations like addition, subtraction, concentration and many more. In short, the statement has return value.
It is an expression that appears on the right side of the assignment, as a parameter to method call.

Assignment Statement: By the help of assignment statements we can create new variables, assign values and also change values.
Assignment statements are categorized into three:

- Value-Based Expressions on Right hand side
- Current Variables on Right hand side
- Operation on Right hand side

2. Indentation:

The programming languages python uses indentation to mark a block of the code. Most of the Programming languages provide indentation for better code formatting and doesn’t enforce to have it. But mainly in Python it is mandatory.
That’s why indentation is crucial in Python.

3. Comments:

Comments are basically nothing but tagged lines of in codes which increases the readability of the code and make the code self-explanatory.
There are two categories of Comments:

i. Single line Comments: ‘#’ by the help of these we begin a single-line comment.
ii. Multi-line comments: “’…’’’ by the help of these we write multiline comments in python.
iii. Doctstring comments: The documentation string in Python gives programmers an easy way of adding qui k notes with every Python module, functions, class and method.
Multiline comments are using triple quotation in strings.

4. Variables:

In Python variable is a memory address that can change, when a memory address cannot change then it is known as constant. Variable is the name of the memory location where the data is stored. Once the variable is stored then space is allocated in memory. It also defines the variable using a combination of numbers, letters, and the underscore character.

5. Constants:

In Python constants is a type of variable that holds values, whose value cannot be changed. We rarely use constants in Python.

6. Token:

In Python tokens are the smallest unit of the program. Python contains the following tokens:

- Reserved words or keywords
- Identifiers
- Literals
- Operators

Reserved words: Reserved words are nothing but a set of special words, which are reserved by python and also have a specific meaning. Here, in Python we are not allowed to use keywords as variables. Reserved words are case sensitive in Python.
For example: False, if, none, import, True, in, and, def, return, elif, try, else, while, except, with, finally, yield, is, as, break, class, etc

Identifiers: In Python identifiers are nothing but user-defined names to represent programmable entity like variables, functions, modules, classes. There are few rules that we need to follow while defining an identifier.
They are:

i. We can use a sequence of letters lowercase or uppercase. We can also mix up digits or an underscore while defining an identifier.

ii. We cannot use digit to begin an identifier name.

iii. We should not use reserved keywords to define an identifier.

iv. You are not allowed to use any other special characters other than underscore.

v. Even though python doc says that you can name an identifier with unlimited length.

Literals: Other built-in objects in python are literals. The Literals can be defined as data that is given in a variable or constant.
The following literals are in:

- String Literals: String literals are a sequence of characters surrounded by quotes. Single, double or triple quotes can be used for a string.

- Boolean literals: Boolean literal can have any of two values i.e. true or false.

- Numeric literals:They are immutable. Numeric literals can belong to three different numerical types Integer, Float, Complex.

- Collection literals: The four types of collection literals are List literals, Tuple literals, Dict literals, and Set literals.

- Special literals: Python basically contains one special character that is none.

Operators: In python operators are the symbols which perform the operation on some values. The following are the known operators in the Python.

- Arithmetic Operators
- Relational Operators
- Assignment Operators
- Logical Operators
- Membership Operators
- Identity Operators
- Bitwise Operators

3.1 VARIABLES

Variables are nothing but reserved memory locations to store values. This means that when you create a variable you reserve some space in memory.

Based on the data type of a variable, the interpreter allocates memory and decides what can be stored in the reserved memory. Therefore, by assigning different data types to variables, you can store integers, decimals or characters in these variables.

3.1a Assigning Values to Variables

Python variables do not need explicit declaration to reserve memory space. The declaration happens automatically when you assign a value to a variable. The equal sign (=) is used to assign values to variables.

The operand to the left of the = operator is the name of the variable and the operand to the right of the = operator is the value stored in the variable. For example − Counter = 100

3.2 Multiple Assignments

Python allows you to assign a single value to several variables simultaneously. For example − a = b = c = 1 Here, an integer object is created with the value 1, and all three variables are assigned to the same memory location. You can also assign multiple objects to multiple variables. For example −

a,b,c = 1,2,"john"

Here, two integer objects with values 1 and 2 are assigned to variables a and b respectively, and one string object with the value "john" is assigned to the variable c.

3.3 Standard Data Types

The data stored in memory can be of many types. For example, a person's age is stored as a numeric value and his or her address is stored as alphanumeric characters. Python has various standard data types that are used to define the operations possible on them and the storage method for each of them.

Python has five standard data types − Numbers

String List Tuple

Dictionary

3.3a Python Numbers

Number data types store numeric values. Number objects are created when you assign a value to them. For example − var1 = 1

var2 = 10

You can also delete the reference to a number object by using the Del statement. The syntax of the Del statement is −

Del var1 [,var2[,var3[,varN]]]]

You can delete a single object or multiple objects by using the Del statement. For example − Del var Del var_a, var_b

Python supports four different numerical types −

- Int (signed integers)
- Long (long integers, they can also be represented in octal and hexadecimal)
- float (floating point real values)
- Complex (complex numbers)

3.3b Python Strings

Strings in Python are identified as a contiguous set of characters represented in the quotation marks. Python allows for either pairs of single or double quotes. Subsets of strings can be taken using the slice operator ([ ] and [:]) with indexes starting at 0 in the beginning of the string and working their way from -1 at the end.

The plus (+) sign is the string concatenation operator and the asterisk (*) is the repetition operator.

For example − str = 'Hello World!'

```
                        Print str
```

3.3c Python Lists

Lists are the most versatile of Python's compound data types. A list contains items separated by commas and enclosed within square brackets ([]). To some extent, lists are similar to arrays in C. One difference between them is that all the items belonging to a list can be of different data type.

The values stored in a list can be accessed using the slice operator ([ ] and [:]) with indexes starting at 0 in the beginning of the list and working their way to end -1.
The plus (+) sign is the list concatenation operator, and the asterisk (*) is the repetition operator.

For example –

```
#!/usr/bin/python
list = [ 'abcd', 786 , 2.23, 'john', 70.2 ] tinylist = [123,
'john'] print list # Prints complete list
```

3.3d Python Tuples

A tuple is another sequence data type that is similar to the list. A tuple consists of a number of values separated by commas. Unlike lists, however, tuples are enclosed within parentheses.

The main differences between lists and tuples are: Lists are enclosed in brackets ([ ]) and their elements and size can be changed, while tuples are enclosed in parentheses (( )) and cannot be updated. Tuples can be thought of as read-only lists.

For example −

```
#!/usr/bin/python
tuple = ( 'abcd', 786 , 2.23, 'john', 70.2 ) tiny tuple = (123, 'john')
print tuple       # Prints the complete tuple
```

3.3e Python Dictionary

Python's dictionaries are kind of hash table type. They work like associative arrays or hashes found in Perl and consist of key-value pairs. A dictionary key can be almost any Python type, but are usually numbers or strings. Values, on the other hand, can be any arbitrary Python object.

Dictionaries are enclosed by curly braces ({ }) and values can be assigned and accessed using square braces ([])

For example −

```
#!/usr/bin/python dict = {}
dict ['one'] = "This is one"

dict[2] = "This is two"
```

3.4 DATABASE FUNDAMENTALS

Database Management System or DBMSin short refers to the technology of storing and retrieving users data with utmost efficiency along with appropriate security measures. This tutorial explains the basics of DBMS such as its architecture, data models, data schemas, data independence, E-R model, relation model, relational database design, and storage and file structure and much more.

Database Basics:

Data item:

The data item is also called as field in data processing and is the smallest unit of data that has meaning to its users. Eg: “e101”,”sumit” Entities and attributes: An entity is a thing or object in the real world that is distinguishable from all other objects

Eg: Bank, employee,student

Attributes:

These are properties are properties of an entity.

Eg: Empcode, ename,rolno,name Logical data and physical data :

Logical data are the data for the table created by user in primary memory. Physical data refers to the data stored in the secondary memory.

Schema and sub-schema :

A schema is a logical data base description and is drawn as a chart of the types of data that are used . It gives the names of the entities and attributes and specify the relationships between them.

A database schema includes such information as :

Characteristics of data items such as entities and attributes. Logical structures and relationships among these data items. Format for storage representation. Integrity parameters such as physical authorization and back up policies.

A subschema is derived schema derived from existing schema as per the user requirement. There may be more then one subschema for a single table

Description of Database Used SQL

It allows combination, extraction, manipulation and organization of data in the voters

Database It is platform independent and therefore can be implemented and used across several such as Windows, Linux server and is compatible with various hardware mainframes. It is fast in performance, stable and provides business values at a low cost.

The database has become an integral part of almost every human's life. Without it, many things we do would become very tedious, perhaps impossible tasks. Banks, universities, and libraries are three examples of organizations that depend heavily on some sort of database system. On the Internet, search engines, online shopping, and even the website naming convention would be impossible without the use of a database. A database that is implemented and interfaced on a computer is often termed a database server.

Reasons to Use MySQL Scalability and Flexibility High
Performance High Availability

Robust Transactional Support

Web and Data Warehouse Strengths Strong Data Protection Management Ease

- Entity

An entity is an “object” in the real world that is distinguishable from all other objects. An entity set is a set of entities of the same type that share the same attributes.

- Weak Entity

An entity set that may not have sufficient attributes to form a primary key is termed as a weak entity set.

- Attribute

Attributes are descriptive properties possessed by each member of an entity set.

- Key attribute

A key attribute is the unique, distinguishing characteristic of the entity.

- Multivalued attribute

In an instance where an attribute has a set of values for a specific entity is called multivalued attribute.

3.5 Derived attribute

In these attributes the value can be derived from the values of other related attributes.

Description of Integrated Development Environment

Tkinter

It is a Python binding to the Tk GUI toolkit. It is the standard Python interface to the Tk GUI toolkit, and is Python's de facto standard GUI. Tkinter is included with standard Linux, Microsoft Windows and Mac OS X installs of Python.

As with most other modern Tk bindings, Tkinter is implemented as a Python wrapper around a complete Tcl interpreter embedded in the Python interpreter. Tkinter calls are translated into Tcl commands which are fed to this embedded interpreter, thus making it possible to mix Python and Tcl in a single application.

Tk provides the following widgets:

button
canvas
check
button

combo box entry frame

label

label frame list box menu

menu button message notebook tk_optionMenu paned window progress bar radio button scale scrollbar

separator size grip spin box text

tree view

It provides the following top-level windows:

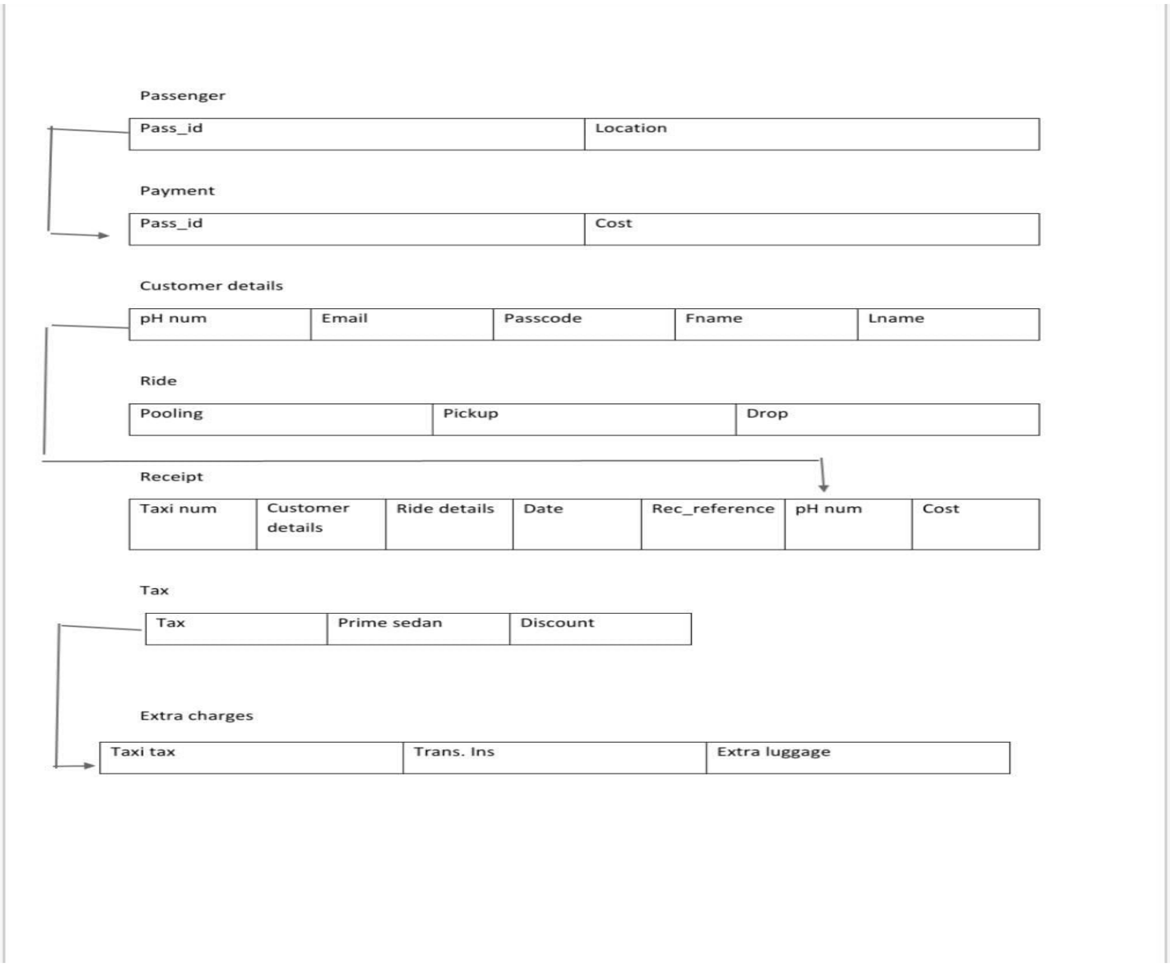
tk_chooseColor - pops up a dialog box for the user to select a color. tk_chooseDirectory - pops up a dialog box for the user to select a directory. tk_dialog - creates a modal dialog and waits for a response. tk_get Open File - pops up a dialog box for the user to select a file to open. tk_get Save File - pops up a dialog box for the user to select a file to save. tk_message Box - pops up a message window and waits for a user response. tk_popup - posts a popup menu. Top-level - creates and manipulates top level

Widgets. Tk also provides three geometry managers: place - which positions widgets at absolute locations grid - which arranges widgets in a grid pack - which packs widgets into a cavity

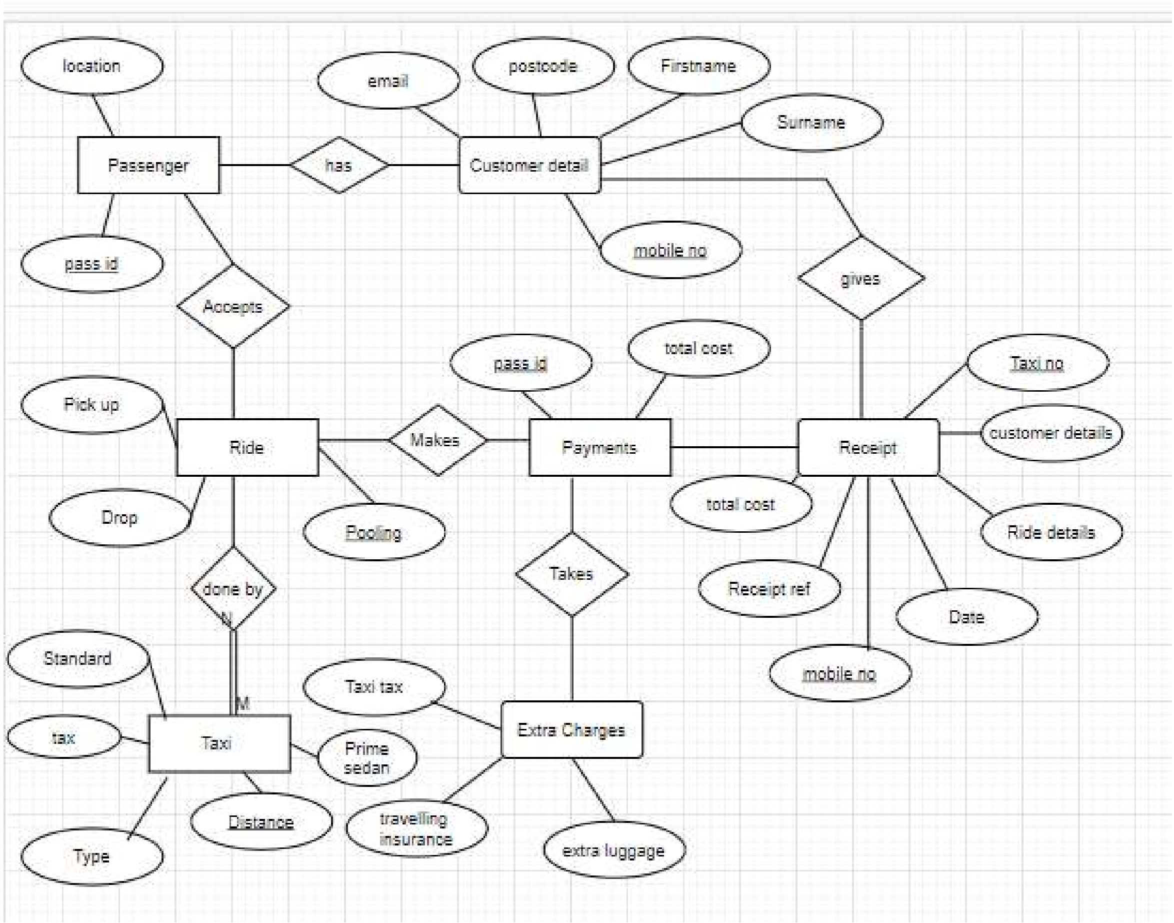
CHAPTER 4

ALGORITHM

Schema Diagram:



ER DIAGRAM:


location
email
postcode
Firstname
Surname
Passenger
has
Customer detail
pass id
mobile no
gives
Accepts
total cost
pass id
Taxi no
Pick up
Ride
Makes
Payments
Receipt
customer details
total cost
Drop
Pooling
Ride details
done by
N
Takes
Receipt ref
Date
Standard
Taxi tax
M
mobile no
tax
Taxi
Prime sedan
Extra Charges
Distance
travelling insurance
extra luggage
Type

CHAPTER 5

IMPLEMENTATION

Implementation of Function

- A function is a block of code which only runs when it is called.
- We can pass data, known as parameters, into a function.
- "def" is the keyword used to define a function.
- A function can return the value

SYNTAX FOR CREATING A FUNCTION

```
Def my_function        //creating a function
    print ("Hello, I am block of function code")                  //block  of code
    my_function()           //calling function.
```

Implementation of Tkinter

- Tkinter is the standard GUI library for Python.
- fast and easy way to create GUI applications.
- It is a powerful object-oriented interface to the Tk GUI toolkit.
  Import the Tkinter module.

SYNTAX FOR CREATING A TKINTER

```
import Tkinter
top = Tkinter.Tk()
# Code to add widgets will go here...
top.mainloop()
```

Implementation of Framework widget

- ✓ Label - Display text on the screen
- ✓ Button - Contain text and can perform an action when clicked
- ✓ Entry - Allows only a single line of text
- ✓ Text - Allows multiline text entry
- ✓ Frame - rectangular region used to group related widgets or provide padding between widgets

Implementation of MYSQL

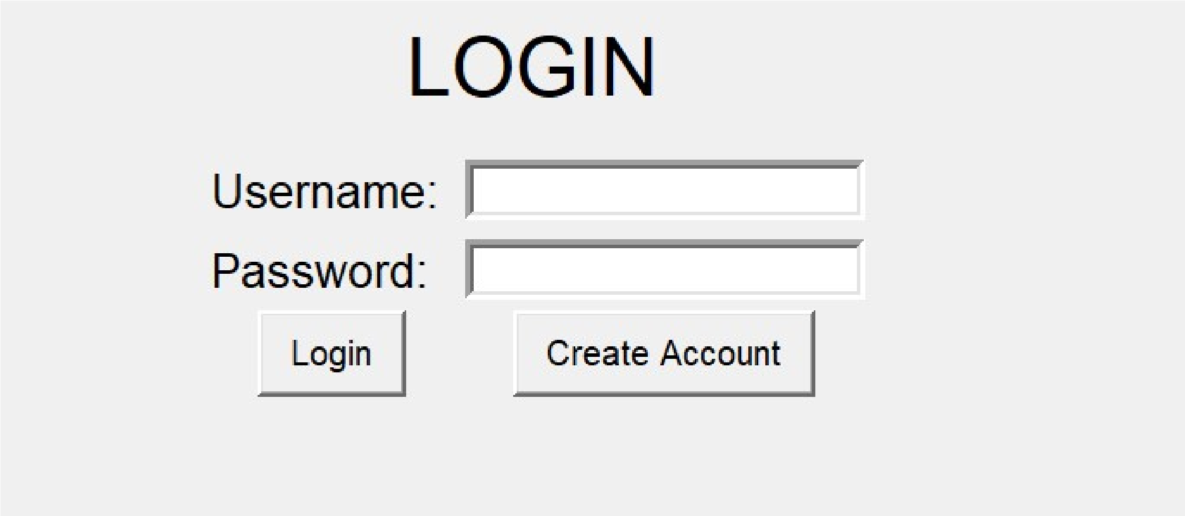
MySQL is an open source relational **database** management system (RDBMS) that can be easily **implemented** and managed either on-premise or via the cloud through a hosting provider. It supports lots of simultaneous writes and scales via replication.

CHAPTER 6

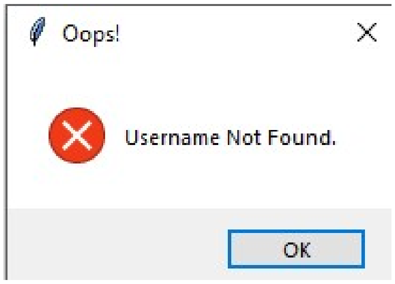
RESULTS

Interpretation of Results

Result 5.1



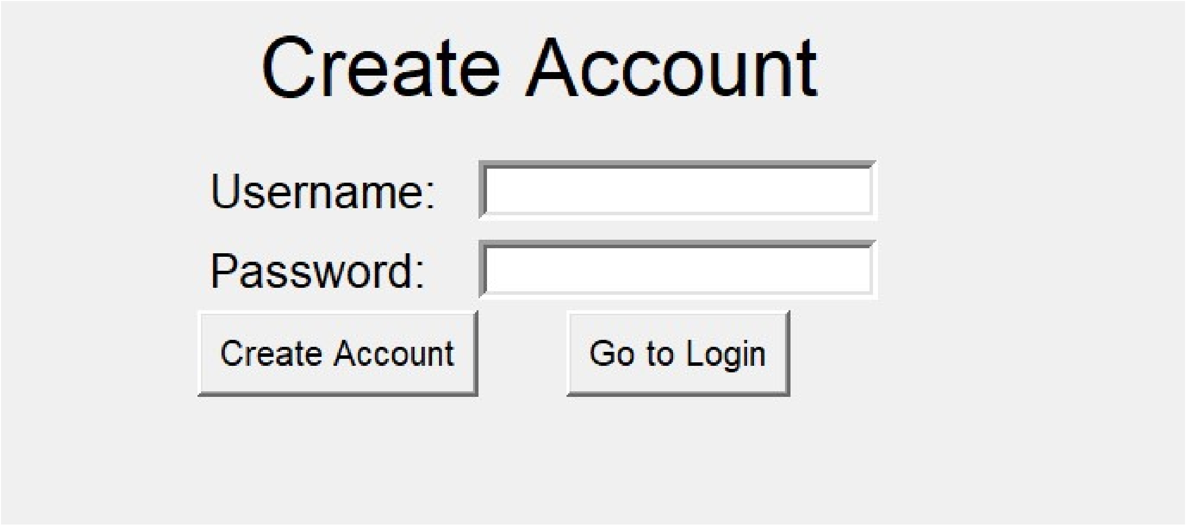
This is the login-page. Once the user registers his details in the sign-up page, the login-page pops up and he has to enter the same details in the login-page or the error page occurs.



Oops!

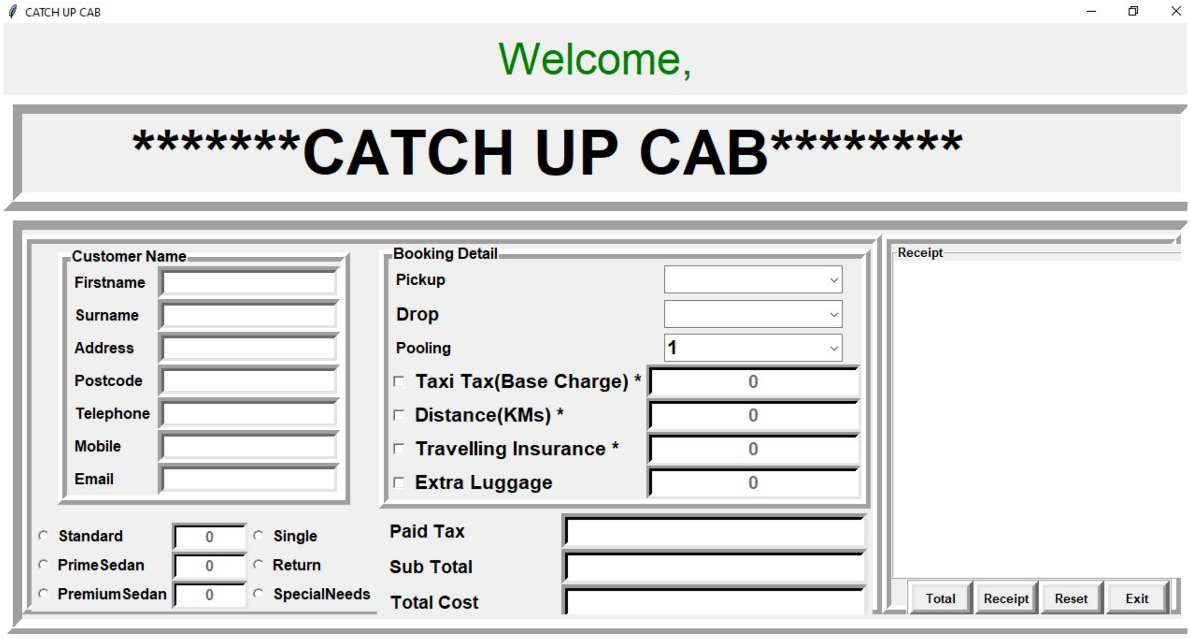
Username Not Found.

Result 5.2



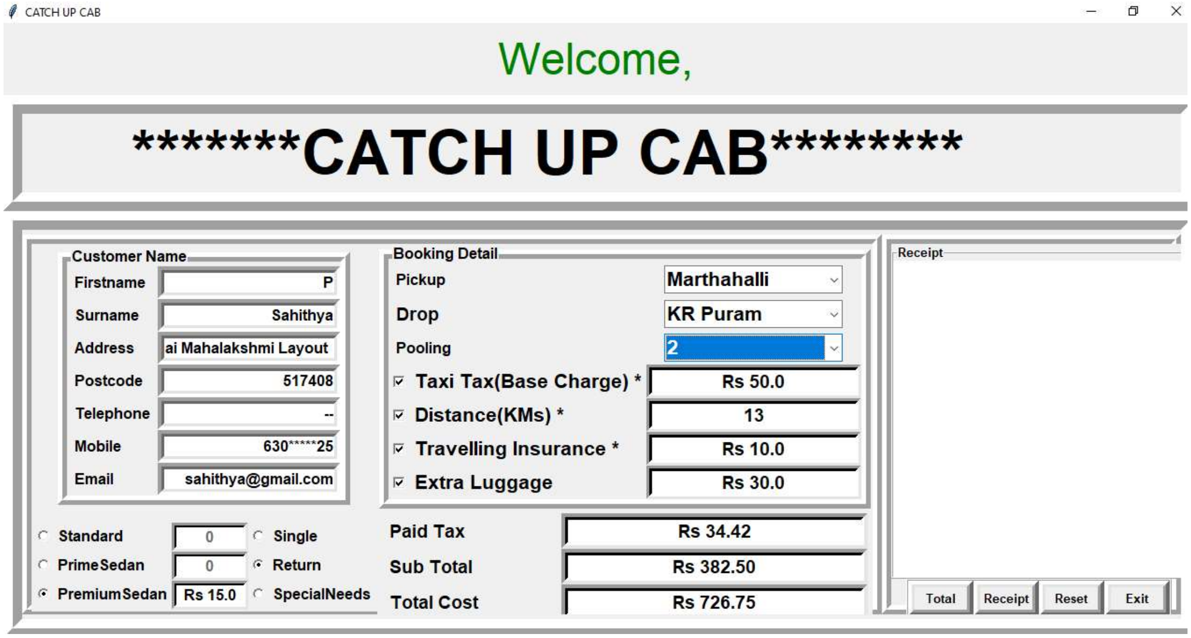
This is the sign-up page for the user on our GUI.once the user enters the username and password, the details will be stored in the database.

Result 5.3



Once the users log-in the application this catchupcab window pops-up. It contains all the database operations that are needed to be done.

Result 5.4



Firstname: P
Surname: Sahithya
Address: ai Mahalakshmi Layout
Postcode: 517408
Telephone: --
Mobile: 630*****25
Email: sahithya@gmail.com

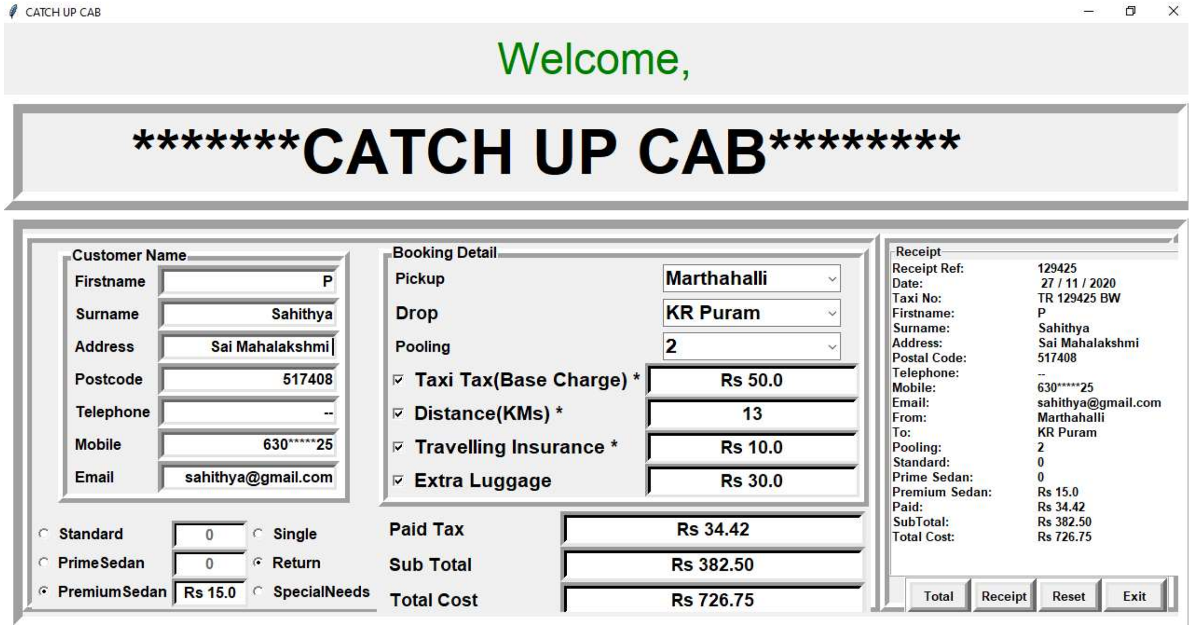
Pickup: Marthahalli
Drop: KR Puram
Pooling: 2
☑ Taxi Tax(Base Charge) *: Rs 50.0
☑ Distance(KMs) *: 13
☑ Travelling Insurance *: Rs 10.0
☑ Extra Luggage: Rs 30.0

○ Standard: 0
○ PrimeSedan: 0
● PremiumSedan: Rs 15.0
○ Single
● Return
○ SpecialNeeds

Paid Tax: Rs 34.42
Sub Total: Rs 382.50
Total Cost: Rs 726.75

Once we give all the given data which must be filled by the user. And press the key of total it shows the total cost of the ride taken by us.

Result 5.5



Customer Name

Firstname	P
Surname	Sahithya
Address	Sai Mahalakshmi
Postcode	517408
Telephone	--
Mobile	630*****25
Email	sahithya@gmail.com

Booking Detail

Pickup	Marthahalli
Drop	KR Puram
Pooling	2
☑ Taxi Tax(Base Charge) *	Rs 50.0
☑ Distance(KMs) *	13
☑ Travelling Insurance *	Rs 10.0
☑ Extra Luggage	Rs 30.0

○ Standard	0	○ Single
○ PrimeSedan	0	● Return
● PremiumSedan	Rs 15.0	○ SpecialNeeds

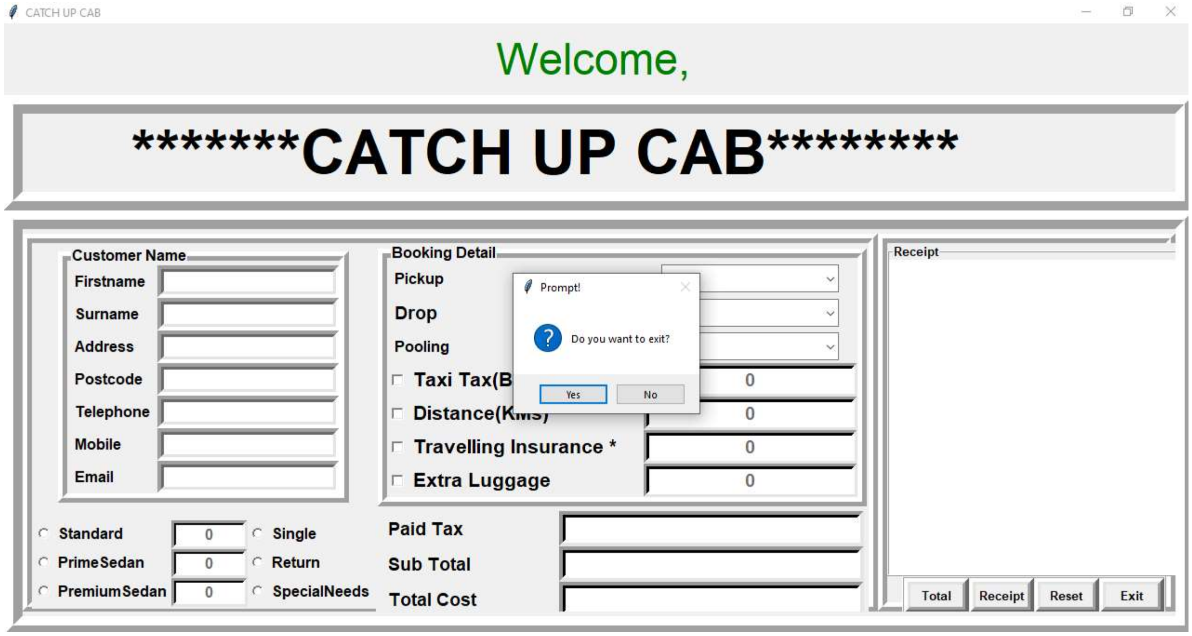
Paid Tax	Rs 34.42
Sub Total	Rs 382.50
Total Cost	Rs 726.75

Receipt

Receipt Ref:	129425
Date:	27 / 11 / 2020
Taxi No:	TR 129425 BW
Firstname:	P
Surname:	Sahithya
Address:	Sai Mahalakshmi
Postal Code:	517408
Telephone:	--
Mobile:	630*****25
Email:	sahithya@gmail.com
From:	Marthahalli
To:	KR Puram
Pooling:	2
Standard:	0
Prime Sedan:	0
Premium Sedan:	Rs 15.0
Paid:	Rs 34.42
SubTotal:	Rs 382.50
Total Cost:	Rs 726.75

Once we are done by given all the data and see the total cost. Then we should give a receipt to the customer by all the details which is given my them.

Result 5.6



□ Taxi Tax(B	0
□ Distance(KMs)	0
□ Travelling Insurance *	0
□ Extra Luggage	0

○ Standard	0	○ Single
○ PrimeSedan	0	○ Return
○ PremiumSedan	0	○ SpecialNeeds

Paid Tax

Sub Total

Total Cost

Prompt!

Do you want to exit?

Once we are done with everything then we can reset the data and press exit to exit the page.

CHAPTER 7

CONCLUSION

This project mainly deals with the catchupcab which is designed using python gui application. It has its own merits and demerits. The main advantage of this project is that it is easy to book a cab through our mobile applications. Therefore the project has been designed to provide the customer with proper convenient whether the cabs are in proper convenient or not.

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