A
REPORT
ON

ONLINE CODE COMPILER

SUBMITTED TO
GUJARAT TECHNOLOGICAL UNIVERSITY, AHMEDABAD.
IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARDS OF
DIPLOMA IN COMPUTER ENGINEERING

SUBMITTED BY

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2019-2020
DEPARTMENT OF COMPUTER ENGINEERING
DARSHAN INSTITUTE OF ENGINEERING & TECHNOLOGY
FOR DIPLOMA STUDIES
RAJKOT-MORBI HIGHWAY, RAJKOT (GUJARAT).

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Certificate

This is to certify that,
Mr. PRATIK B. KANSARA having Enrollment No:**176620307029** has completed **Part-I UDP** Project work for **Semester VI** having title **CODE TRAINER,** in a group of **4** persons under the guidance of the Faculty Guide **Prof. PAYAL M. BODA.**

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EXAMINER'S CERTIFICATE OF APPROVAL

This is to certify that draft report entitled **CODE TRAINER**, submitted by **PRATIK B. KANSARA (176620307029)**, **PRANAV P. CHANPARA (176620307016), VANDIT D. JOSHI (176620307028), RUTVIK M. KATHAROTIA (176620307031)** in partial fulfillment for the award of the diploma in **Computer Engineering** of the Gujarat Technological University-Ahmedabad is hereby approved.

Internal Examiners

External Examiners

2019-2020

DEPARTMENT OF COMPUTER ENGINEERING DARSHAN INSTITUTE OF ENGINEERING & TECHNOLOGY FOR DIPLOMA STUDIES

RAJKOT-MORBI HIGHWAY, RAJKOT (GUJARAT).

ACKNOWLEDGEMENT

A successful project can never be prepared by single effort, but it also demands the help and guardianship of some conversant person who helps in the undersigned actively into the completion of successful project.

With great pleasure we express our gratitude to our guide Mrs. PAYAL M. BODA and Prof. CHINTAN N. KANANI without their help this would not have been completed.

They have given Their precious suggestions and constative guidance that help us to complete project

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ABSTRACT

In present scenario usage of technology is widely increased mainly usage of internet had reached to every home.For eg. if you have to compile java program then we need JDK(Java Devlopment Kit) installed in your system. It is time taking process. But if you use our website no need to install JDK to your system. Our website allows you to compile source code and execute it online in different languages. Our website will provide online debugging and also allow to run the code in threee different languages. Users need to write code in editor and press "Run" button to compile and execute it. User also solve problem to increase logic by clicking problem solving.

1. PROBLEM SUMMARY

1.1 Problem Identification

If user has to run and exeute the source code of program,he have to install all the necessary softwares in the system they will consume more required space in the device.And this is time taking process.Use can not do coding of different languages using one software.

1.2 Problem Solution

By using our website the space required to install software will be reduced on your device.And user can perform coding of different programming languages like c,c++ and java at same place.

2. PLANNING

2.1 Model Description

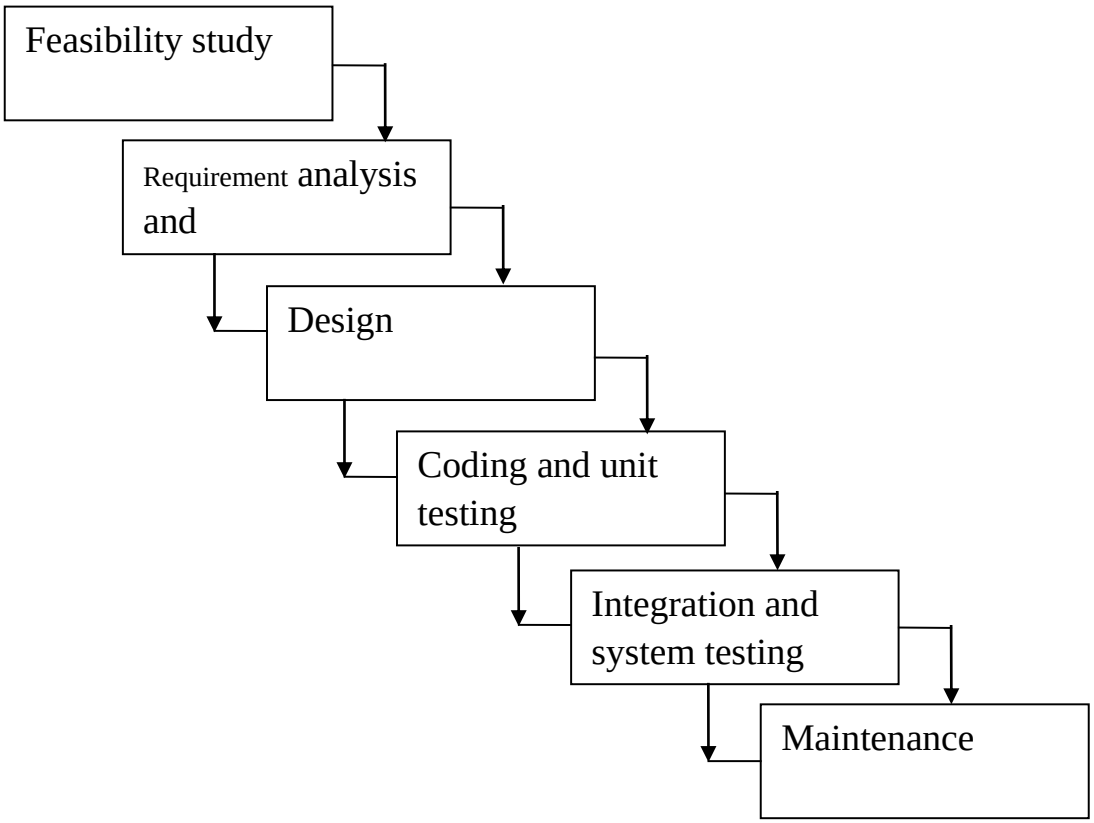


Fig. Iterative Waterfall Model

- In our project we are using iterative waterfall model.
- It is not possible to strictly follow the classical waterfall model.
- Making necessary changes to the classical waterfall model so that it becomes applicable to practical software development projects.
- The main change to the classical waterfall model is in the form of providing feedback paths from every phase to its preceding phases as shown in figure.
- The feedback paths allow for correction of the errors committed during a phase as and when these are detected in a later phases.

For example if during testing a design error is identified then the feedback path allows the design to be reworked and the changes to be reflected in the design document

- There is no feedback path to the feasibility stage. This means that the feasibility study errors cannot be corrected.

Requirements analysis and specification

- The aim of the requirements analysis and specification phase is to understand the exact requirements of the customer and to document them properly. This phase consists of two distinct activities, namely
  - Requirements gathering and analysis, and
  - Requirements specification
- The goal of the requirements gathering activity is to collect all relevant information from the customer regarding the product to be developed. This is done to clearly understand the customer requirements so that incompleteness and inconsistencies are removed.
- The requirements analysis activity is begun by collecting all relevant data regarding the product to be developed from the users of the product and from the customer through interviews and discussions.
- During SRS activity, the user requirements are systematically organized into a Software Requirements Specification (SRS) document.

Design

- During the design phase the software architecture is derived from the SRS document. Two distinctly different approaches are available.
- Traditional design consists of two different activities; first a structured analysis of the requirements specification is carried out where the detailed structure of the problem is examined. During structured design, the results of structured analysis are transformed into the software design.

Coding and unit testing (Implementation)

- The purpose of the coding and unit testing phase of software development is to translate the software design into source code. Each component of the design is implemented as a program module. The end-product of this phase is a set of program modules that have been individually tested.

- Each module is unit tested for determine the correct working of all the individual modules.

Integration and system testing

- Integration of different modules is done once they have been coded and unit tested. During the integration and system testing phase, the modules are integrated in a planned manner.
- Finally, when all the modules have been successfully integrated and tested, system testing is carried out. The goal of system testing is to ensure that the developed system conforms to its requirements laid out in the SRS document. System testing usually consists of three different kinds of testing activities.
- α – testing: It is the system testing performed by the development team.
- β – Testing: It is the system testing performed by a friendly set of customers.
- Acceptance testing: It is the system testing performed by the customer himself after the product delivery to determine whether to accept or reject the delivered product.

Maintenance

- Maintenance involves performing any one or more of the following three kinds of activities:
  - Correcting errors that were not discovered during the product development phase. This is called corrective maintenance.
  - Improving the implementation of the system, and enhancing the functionalities of the system according to the customer's requirements. This is called perfective maintenance.
  - Porting the software to work in a new environment. For example, porting may be required to get the software to work on a new computer platform or with a new operating system. This is called adaptive maintenance.

2.2 RISK MANAGEMENT

Risk Management

- The aim of risk management is to reducing the impact of all kind of risks that might affect a project. Risk management consists of three essential activities: risk identification, risk assessment, and risk containment.

Risk Identification

- A software project can be affected by a large variety of risks. In order to be able to systematically identify the important risks which might affect a software project, it is necessary to categorize risks into different classes.
- The project manager can then examine which risks from each class are relevant to the project. There are three main categories of risks which can affect a software project:

Project Risks

- Project risks concern varies forms of budgetary, schedule, personnel, resource, and customer-related problems. An important project risk is schedule. It is very difficult to monitor and control a software project.
- It is very difficult to control something which cannot be seen.
- The invisibility of the product being developed is an important reason for many software projects failure.
- So in our project we are trying to resolve this kind of project risk which is also known as schedule risk.

Technical Risks

- Technical risks concern design, implementation, interfacing, testing, and maintenance problems.
- Technical risks also include ambiguous specification, incomplete specification, changing specification, technical uncertainty. Most technical risks occur due to the team member's insufficient knowledge about the project.
- So in order to prevent this risk, we have done appropriate project analysis before starting our project.

3. DETAIL DESCRIPTION

Admin-

The Admin can register and add task and its various input and output.Admin can also See user that register to website.

- **a_ID**: Id of Admin
- **admin_name:** Name of admin
- **admin_pass:** Password of admin

Tasks-

The various tasks added by admin are store here.Admin can add , delete , update tasks as per needed.

- **t_ID:** ID of task
- **t_name:** Name of task
- **t_description:** Description of task
- **t_noOfTestcase:**How many testcase to be added
- **t_noOfInput:** How many input in one testcase
- **t_noOfOutput:** How many output in one testcase
- **ct_language:** Language of task

InputOutput-

Various input and output added by admin are stored here.It contain inputs and appropriate output.

- **io_ID**: Id of io
- **input**: For input
- **output**: For output
- **t_ID**: Id of task

Users-

The all detils of user are stored here like id,username,password,etc.Admin can see user last login , user is active as well as user name.Admin can delete user if needed.

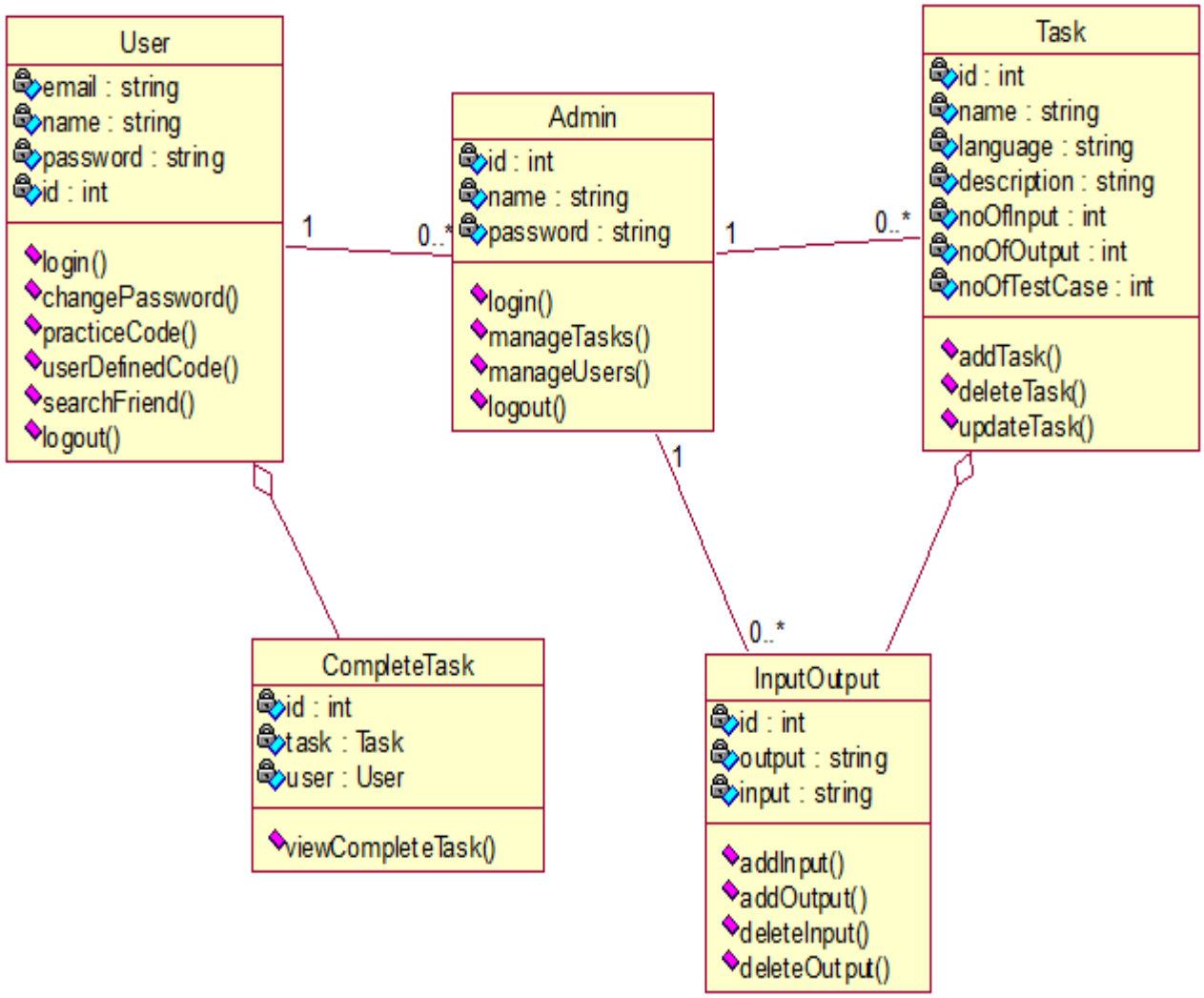
- **u_ID:** Id of user
- **user_name:** Name of user
- **user_pass:** Password of user
- **user_email:**Email of user
- **user_last_login:**User last login
- **user_joined:**user Joined date
- **is_active:**activation of user inform of (0) for deactivate and (1) for activate

CompletedTasks-

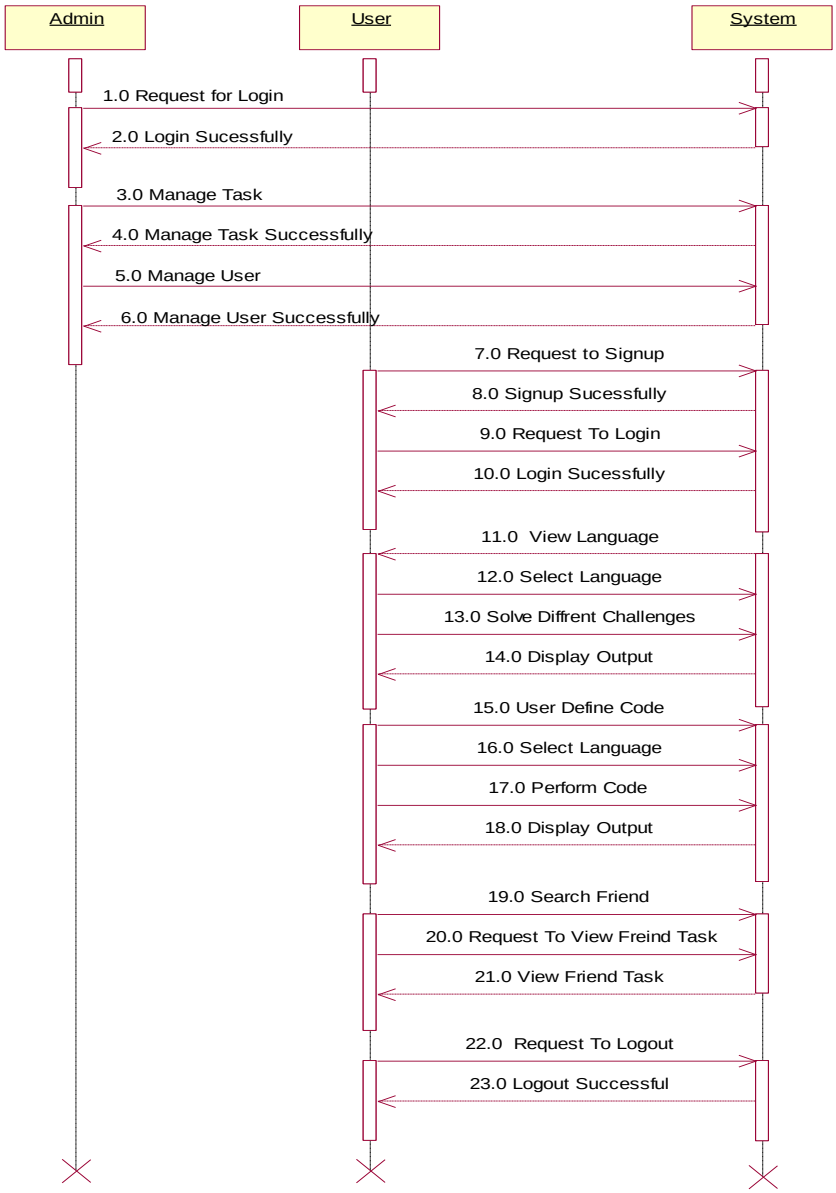
It stores task completed by user. If user satisfy testcase entered by admin then task is completed and stored.Admin can see Completed tasks done by user.

- **ID:** Id of Completed tasks
- **u_ID:** Id of user
- **t_ID:** Id of task

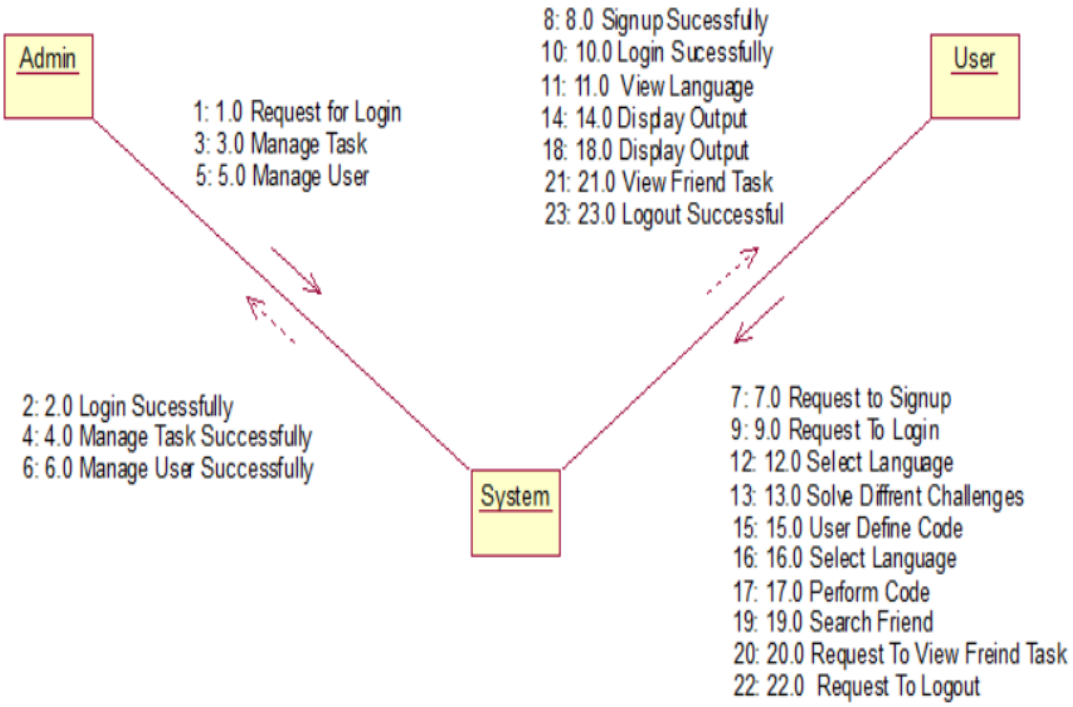
4.1 CLASS DIAGRAM



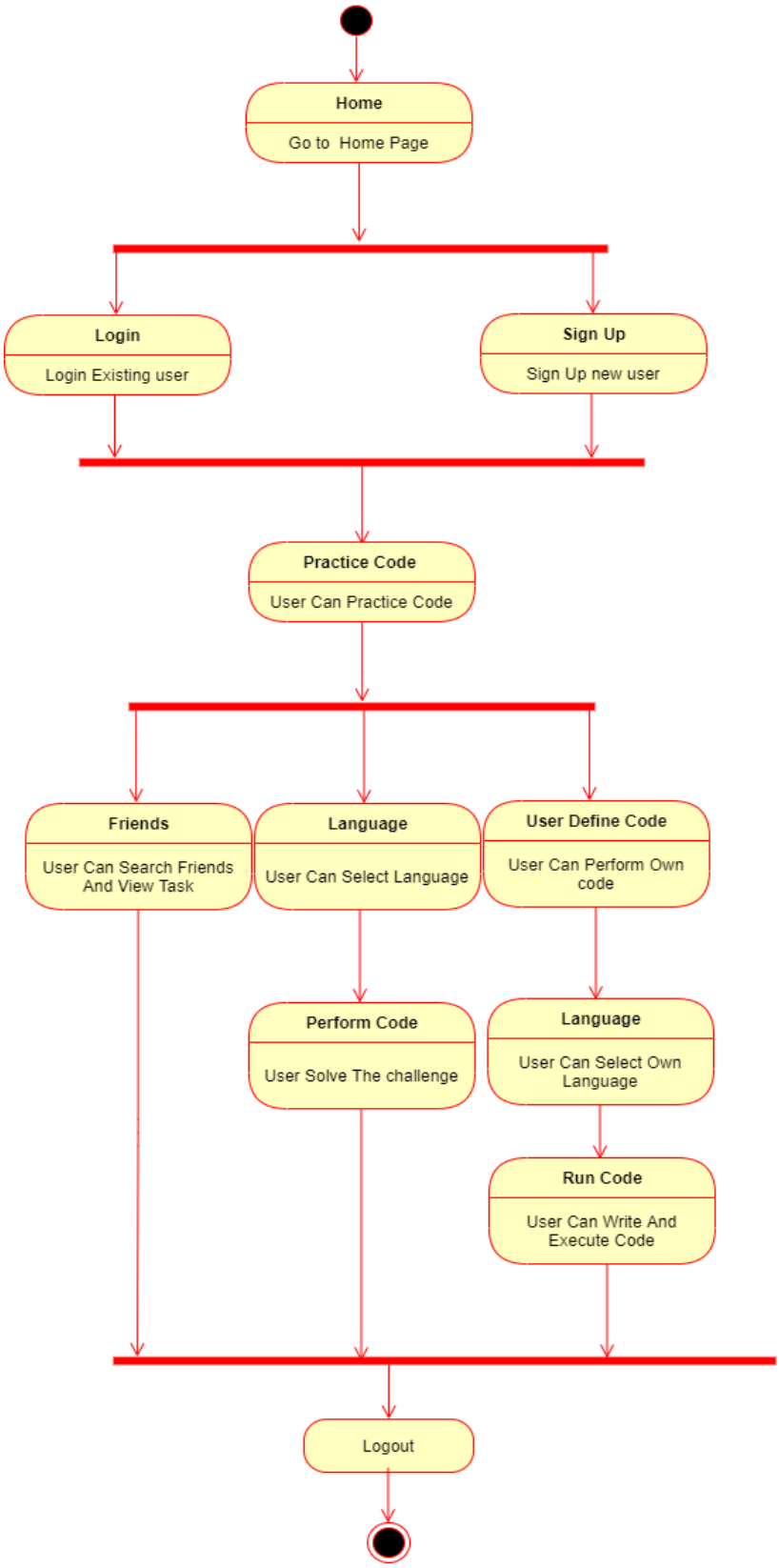
4.2 SEQUENCE DIAGRAM



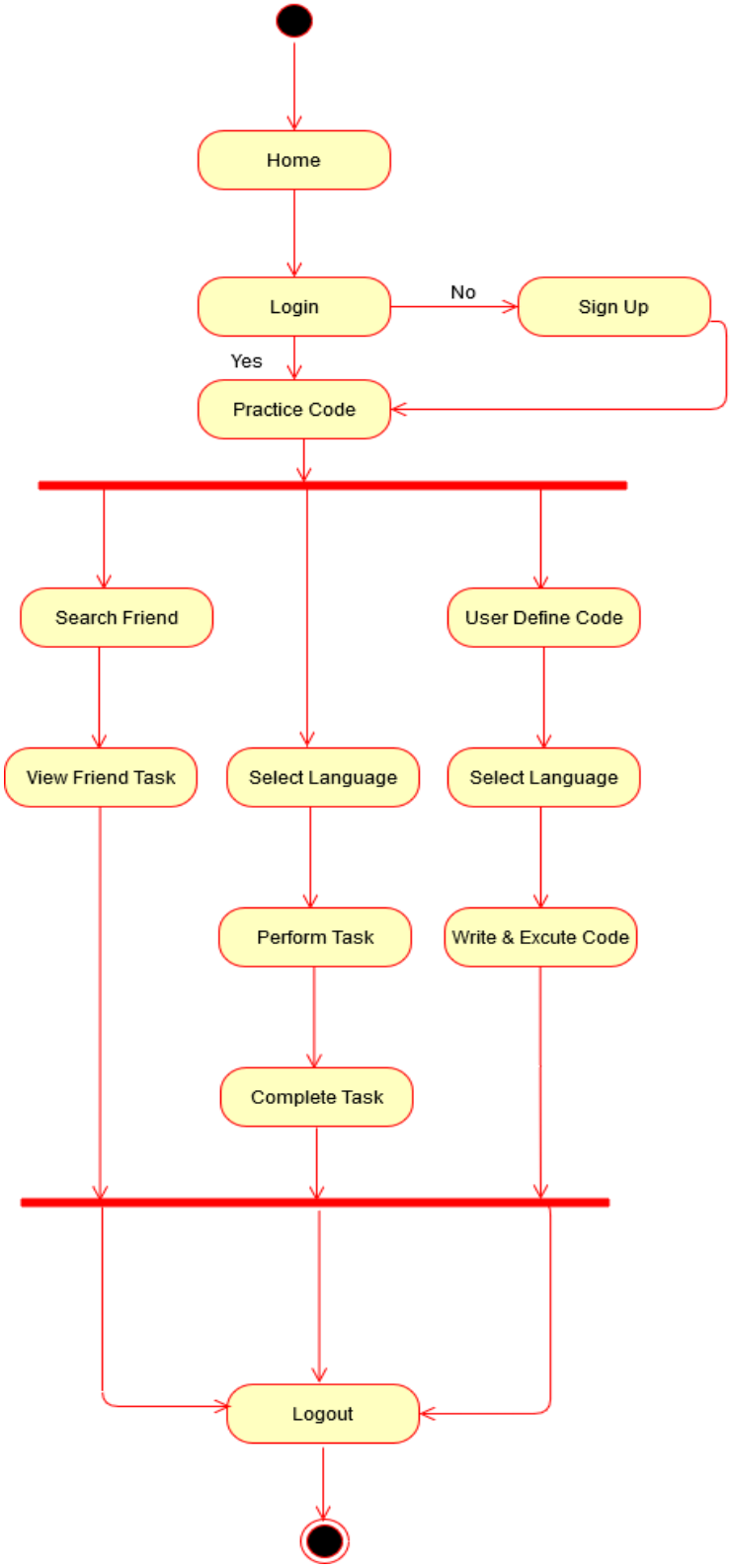
4.3 COLLABORATION DIAGRAM



4.4 STATE DIAGRAM



4.5 ACTIVITY DIAGRAM



4.6 USE CASE DIAGRAM

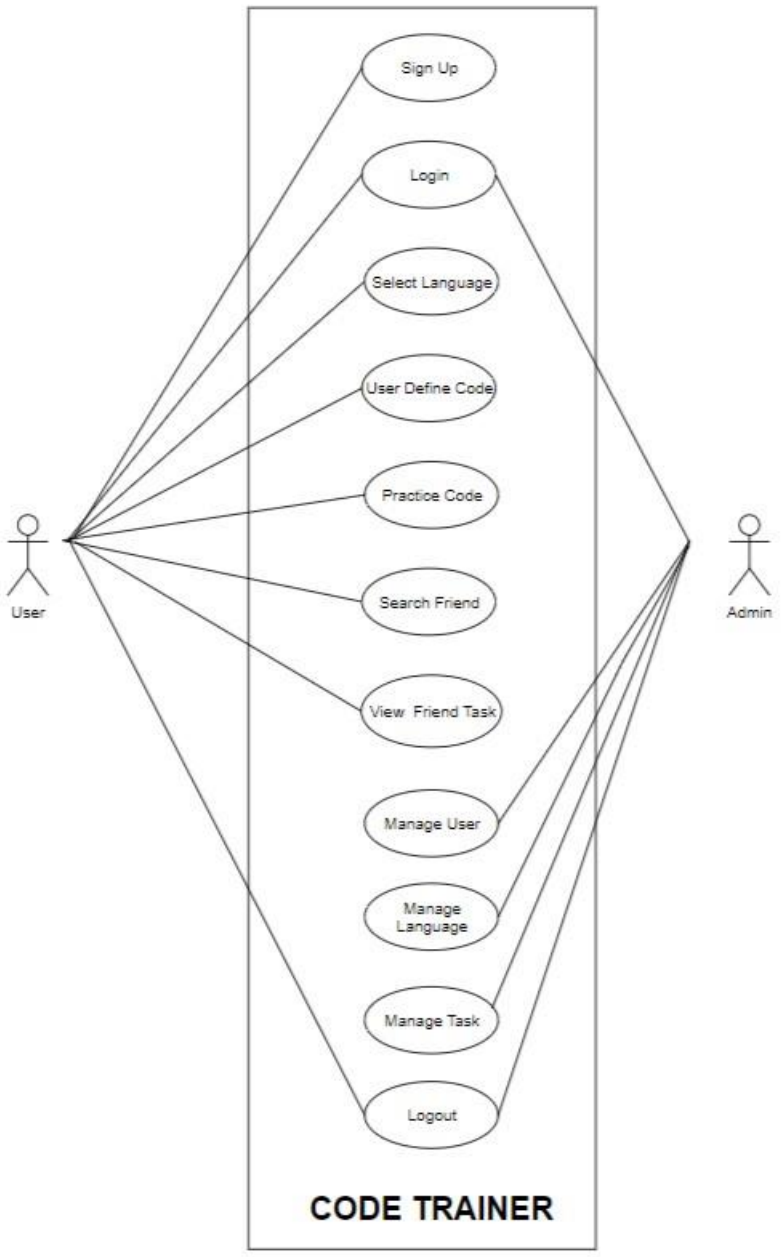


Fig.4.6 Use case Diagram for Code Trainer

4.7 DATA FLOW DIAGRAM

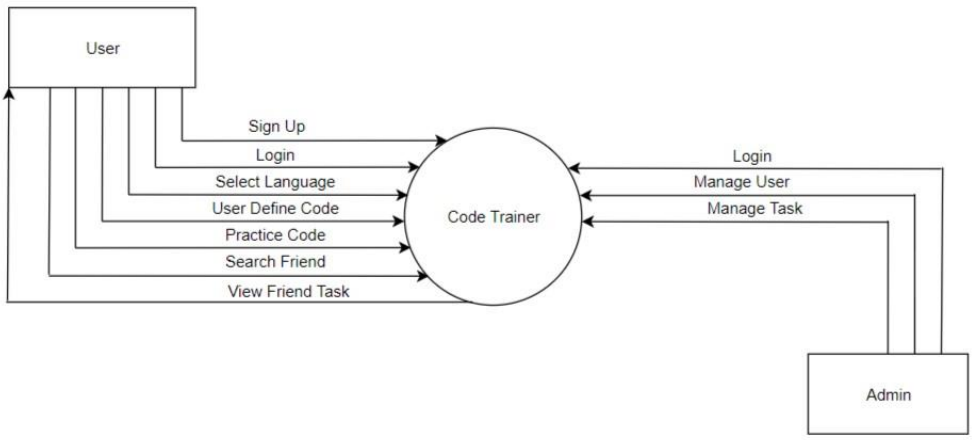


Fig.4.7.1 Data Flow Diagram for Code Trainer (Level 0)

Data Flow Diagram For Code Trainer Admin (Level 1)

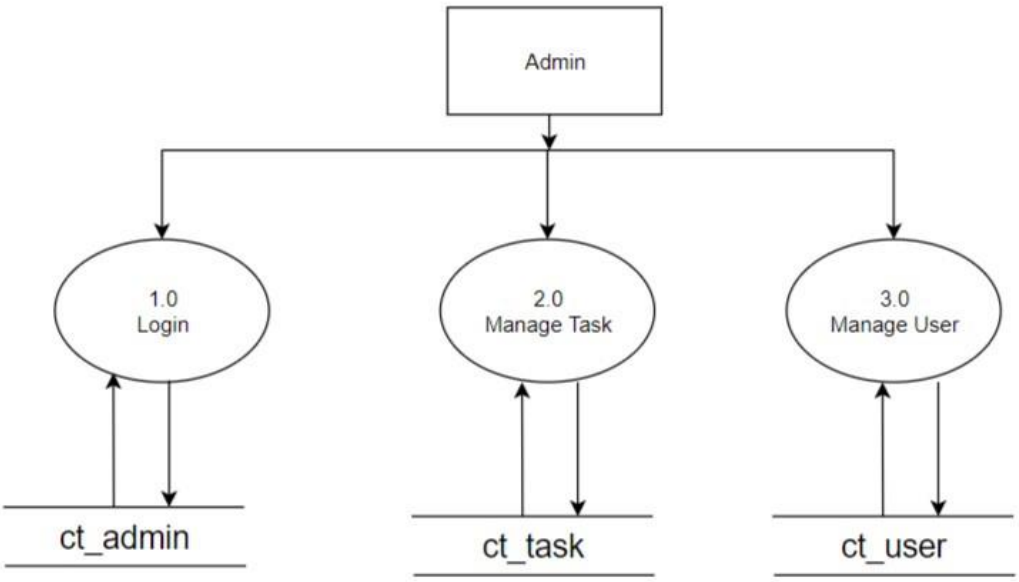


Fig.4.7.2 Data Flow Diagram for Admin (Level 1)

Data Flow Diagram For Code Trainer User (Level 1)

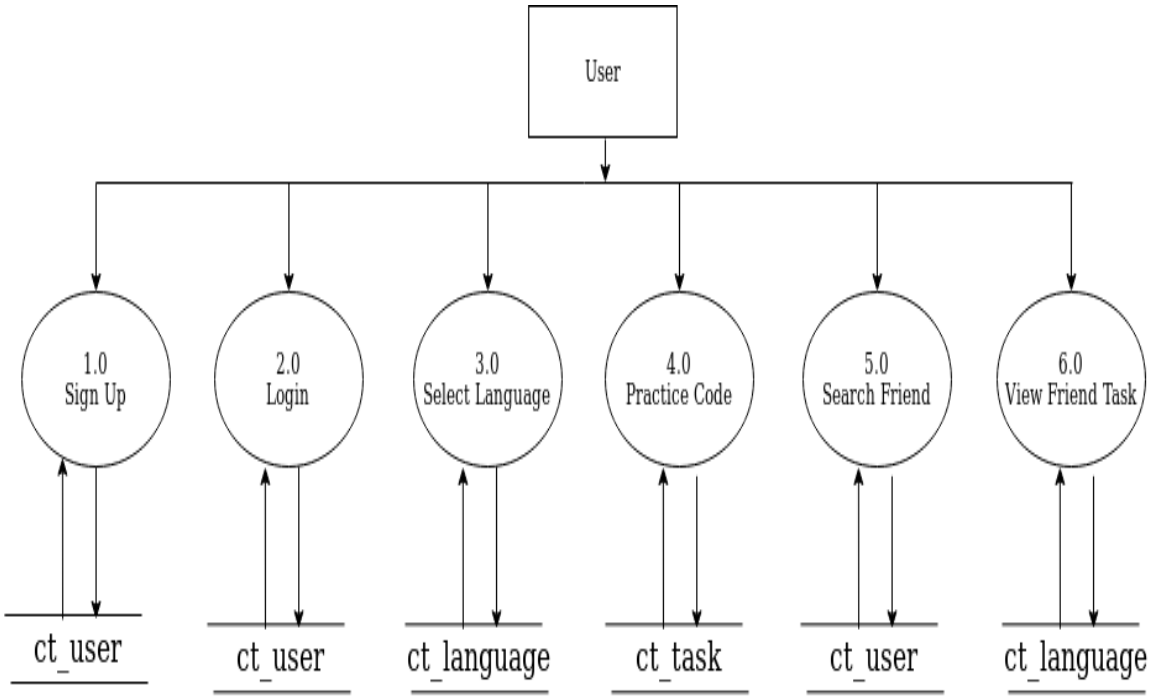


Fig.4.7.2 Data Flow Diagram for User (Level 1)

5. DATA DICTIONARY

5.1 DATABASE TABLE

ct_user					
Field name	**Data type**	**Size**	**Constraint**	**Reference**	**Description**
u_ID	int	20	Primary Key	-	To get user Id
user_name	varchar	60	NOT NULL	-	To get user name
user_pass	varchar	255	NOT NULL	-	To get user password
user_email	varchar	100	NOT NULL	-	To get user email
user_last_login	datetime	-	NOT NULL	-	Time to get user lastlogin
user_Joined	datetime	-	NOT NULL	-	User joined time
Is_active	boolean	-	NOT NULL	-	For user activation check

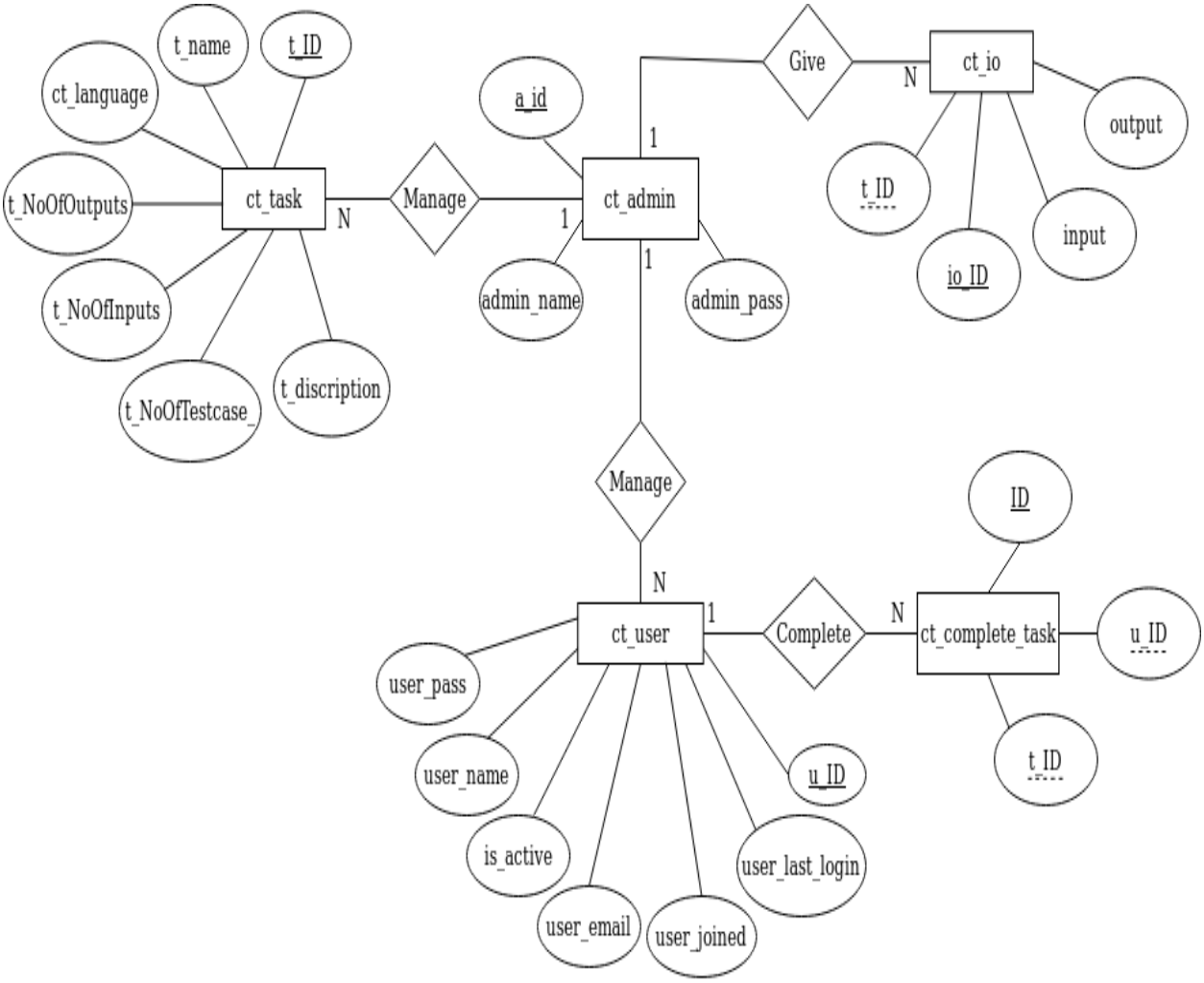
ct_admin					
Field Name	**Data type**	**Size**	**Constraint**	**Reference**	**Description**
a_ID	int	20	Primary key	-	For admin id
admin_name	varchar	100	NOT NULL	-	For admin name
Admin_pass	varchar	100	NOT NULL	-	For admin password

ct_tasks					
Field Name	**Data Type**	**Size**	**Constraint**	**Reference**	**Description**
t_ID	int	20	Primary Key	-	Tssk Id
t_name	Varchar	100	NOT NULL	-	Taskname
t_description	Varchar	100	NOT NULL	-	Task description

ct_**io**					
Field Name	**Data type**	**Size**	**Constraint**	**Reference**	**Description**
io_ID	int	20	Primary Key	-	Contain comment ID
input	Varchar	500	NOT NULL		For input
output	Varchar	500	NOT NULL	-	For output
t_ID	int	50	NOT NULL	-	For taskId

ct_completedtasks					
Field Name	**Data Type**	**Size**	**Constraint**	**Reference**	**Description**
ID	int	20	Primary Key	-	For completed task id
u_ID	int	20	NOT NULL	-	For user id
t_ID	int	20	NOT NULL	-	For task id

5.1 E-R DIAGRAM



6. SCREENSHOTS

6.1 Admin Page

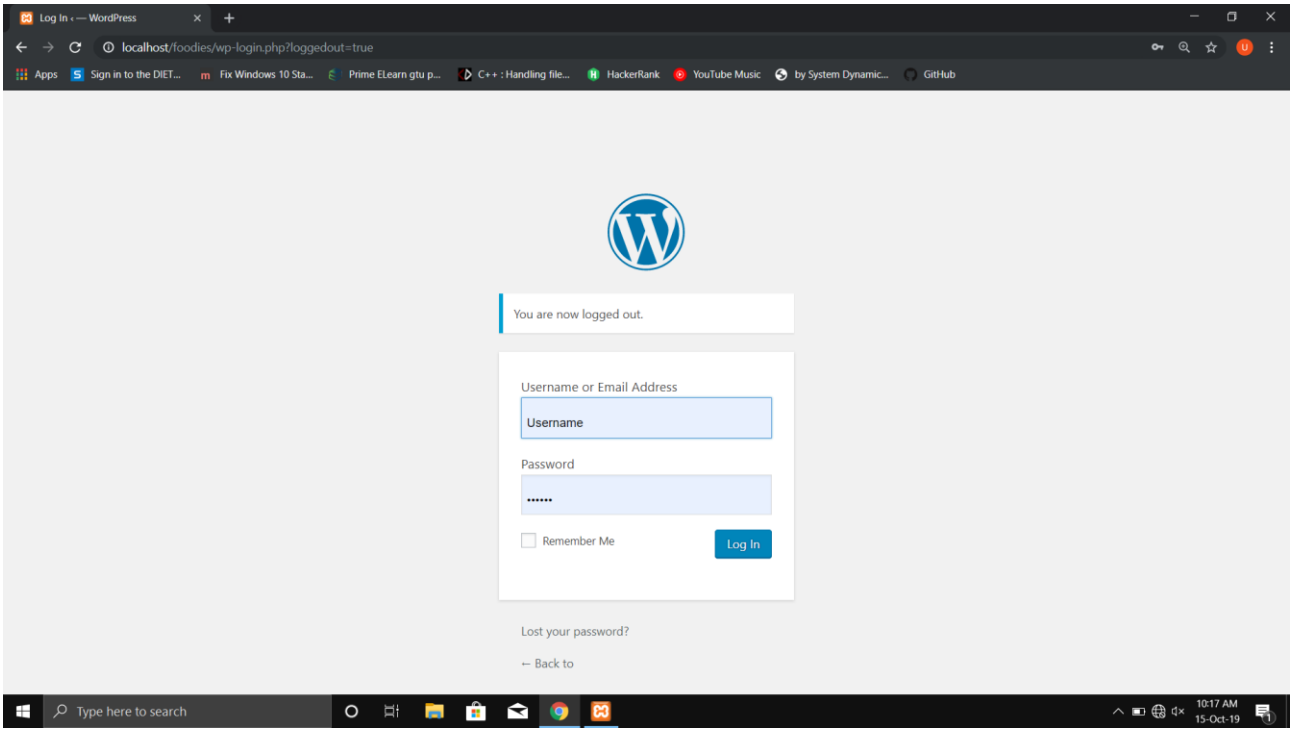


Fig. 6.1

- Admin of the system can log in through this page.
- Admin panel is displayed once logged in.
- Admin can manage pages, products, etc from here.

6.2 Store Page

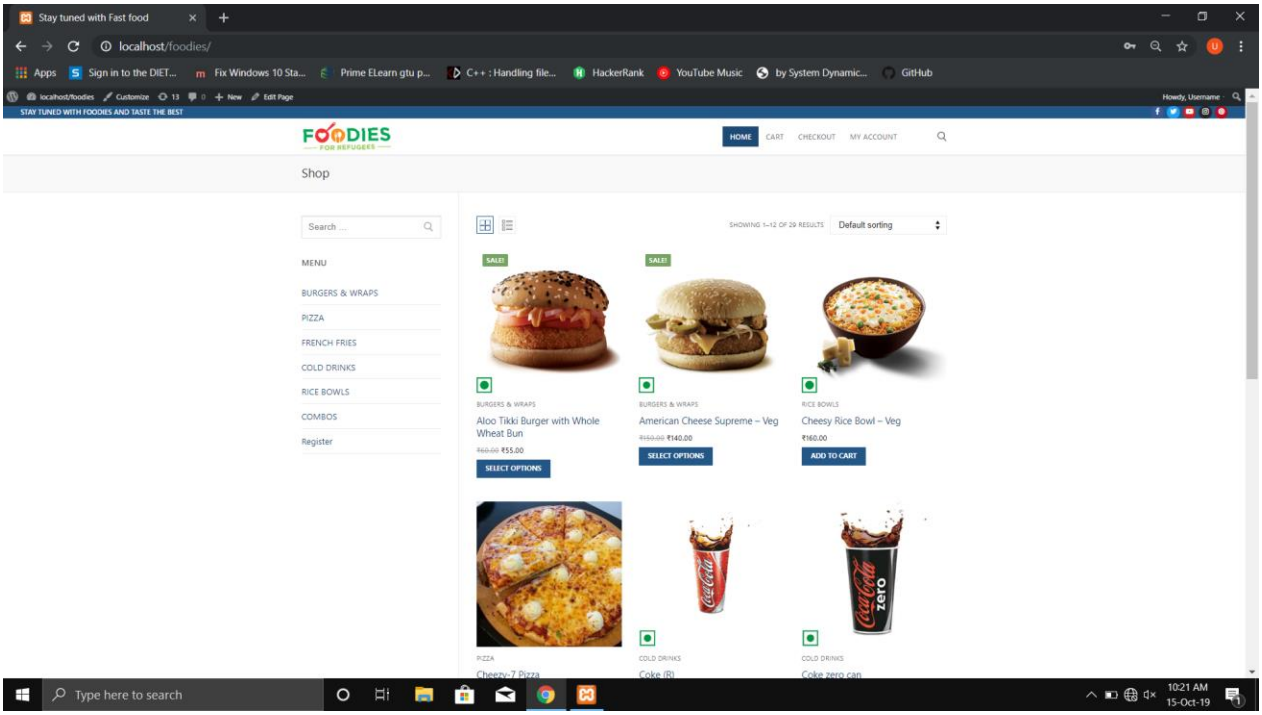


Fig. 6.2

- Main store page is displayed as above.
- Products are listed with price and with different available options.
- User can search products or filter by category.

6.3 Store Page

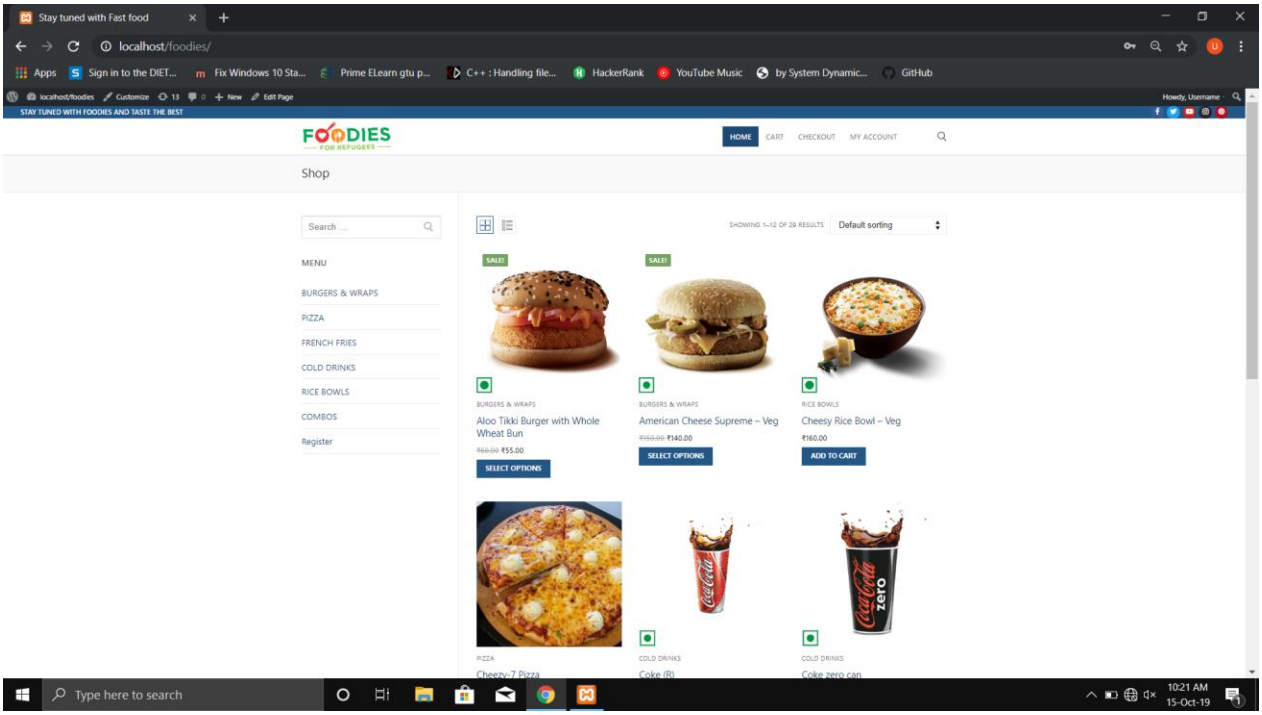


Fig. 6.3

- Main store page is displayed as above.
- Products are listed with price and with different available options.
- User can search products or filter by category.

6.4 Product Detail Page

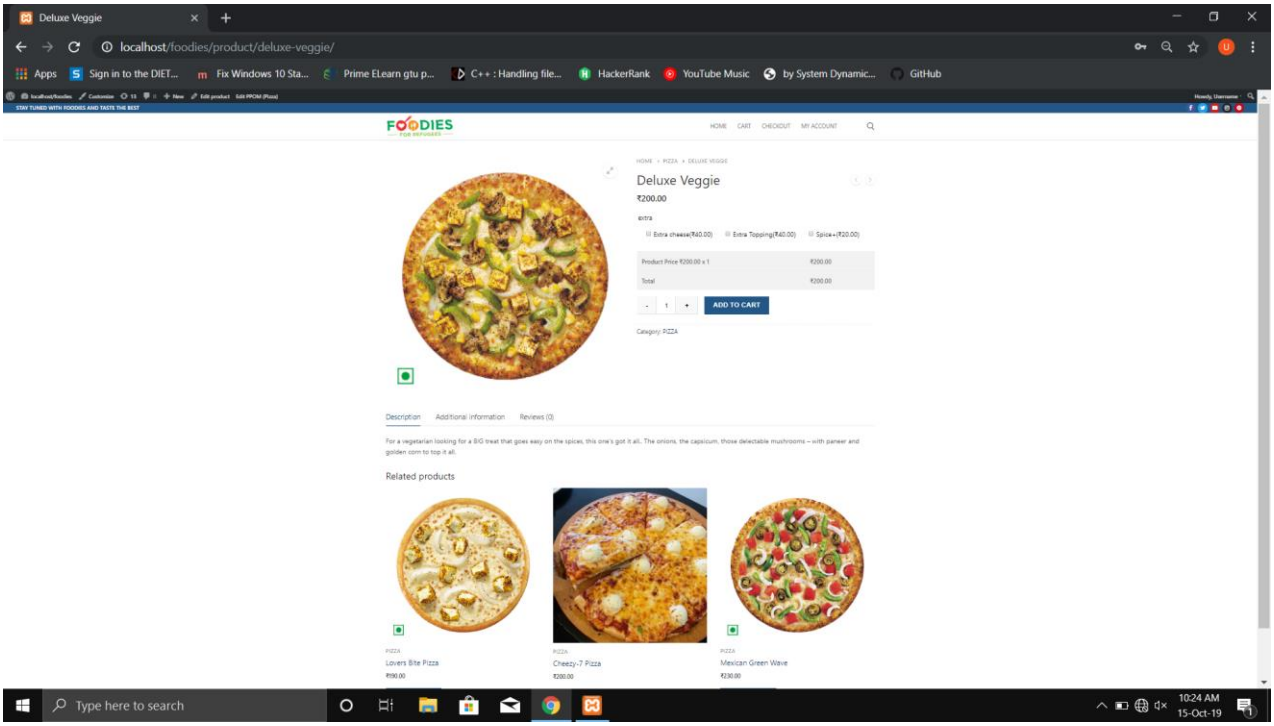


Fig. 6.4

- Product details are displayed with all details on this page.
- User can select topping and cheese options.
- User can add item to cart or purchase directly.

6.5 Products Page

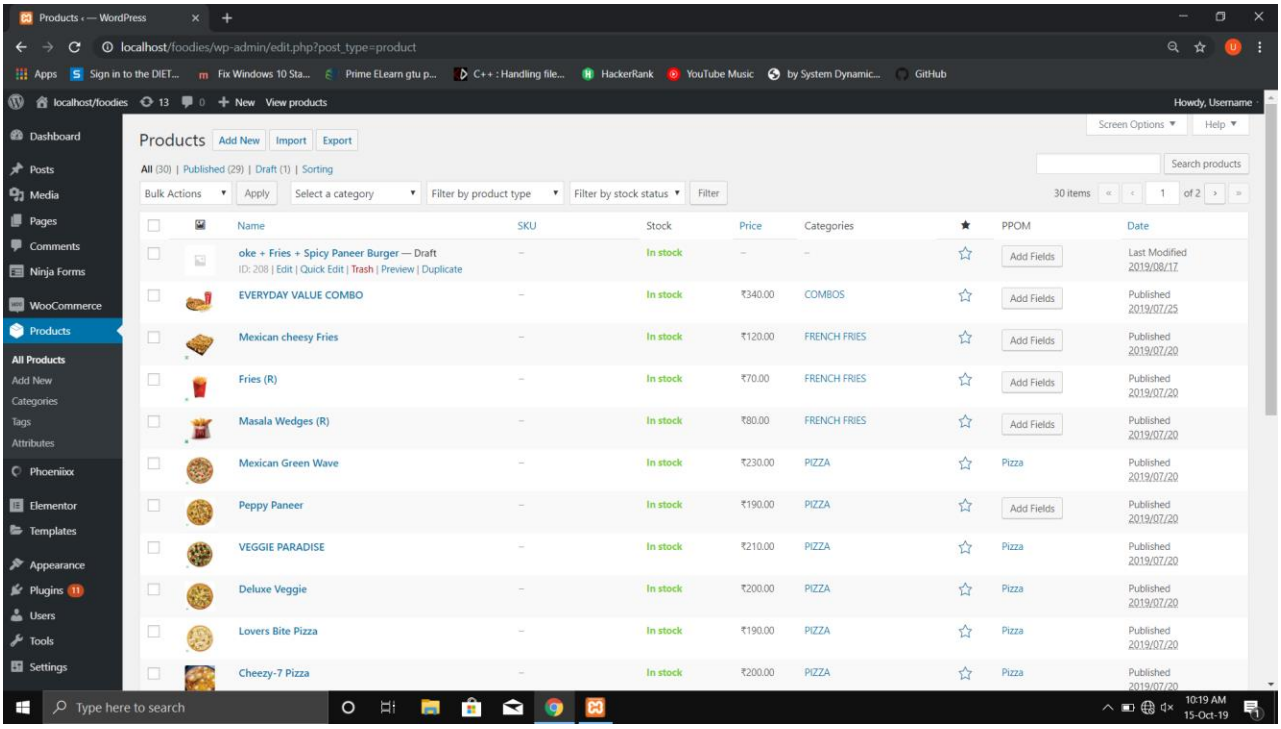


Fig. 6.5

- This is admin product management page.
- Admin can add, edit and delete products from here.

6.6 Media Library

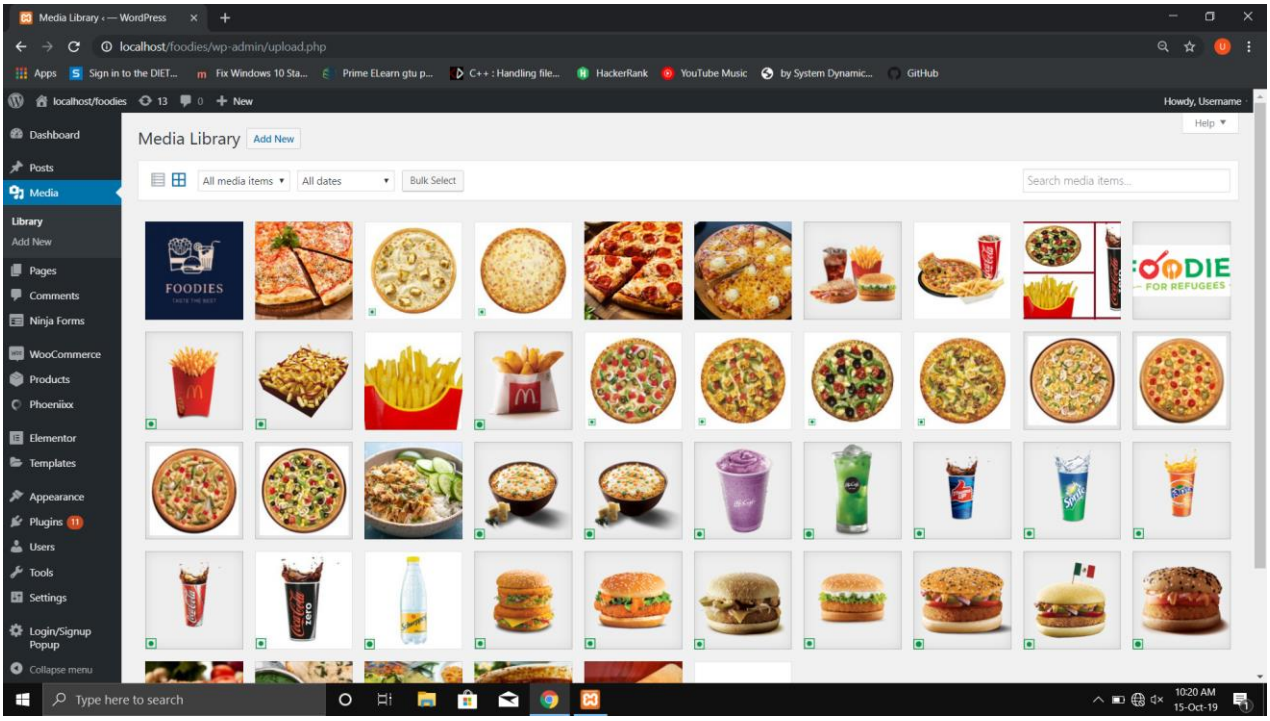


Fig. 6.6

- Media Library can be accessed by admin.
- It contains all the media of the website.

6.7 Cart Page

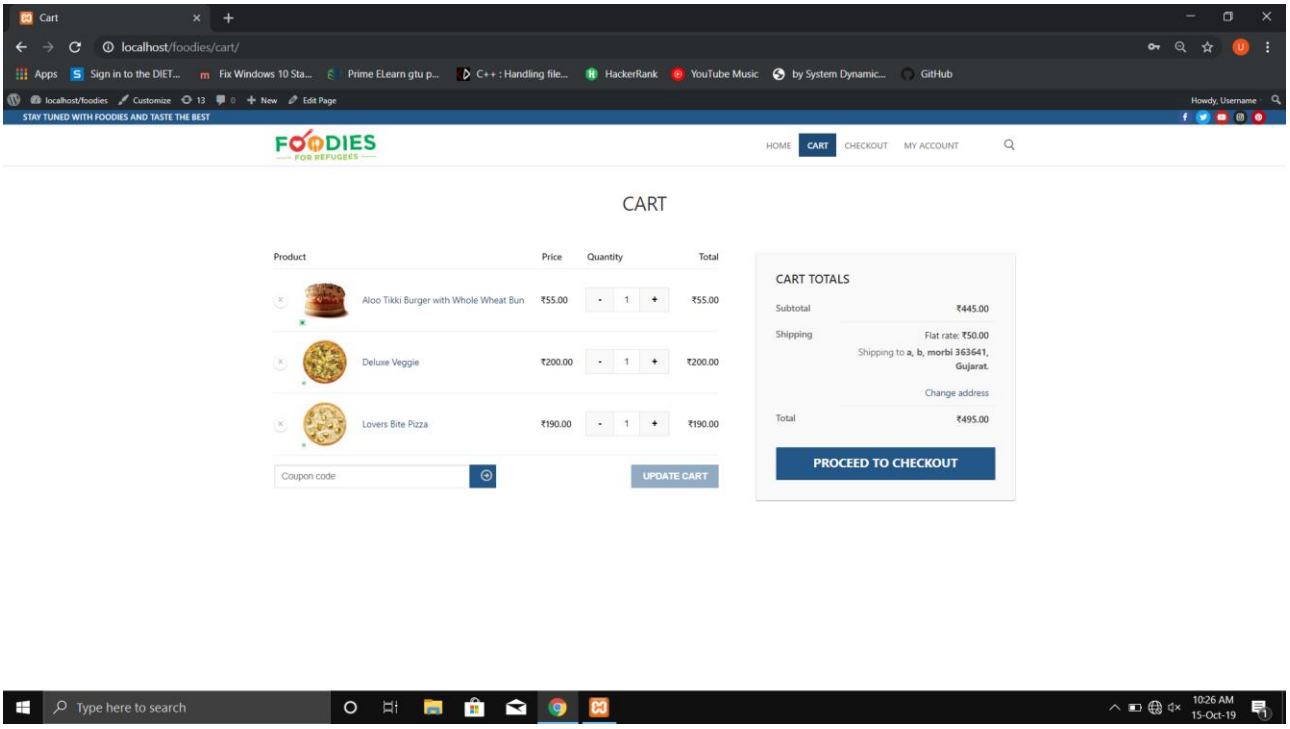


Fig. 6.7

- User can view their cart items as shown above.
- It displays all added items with selected items, quantity and price.
- Checkout is also available.

6.8 Checkout Page

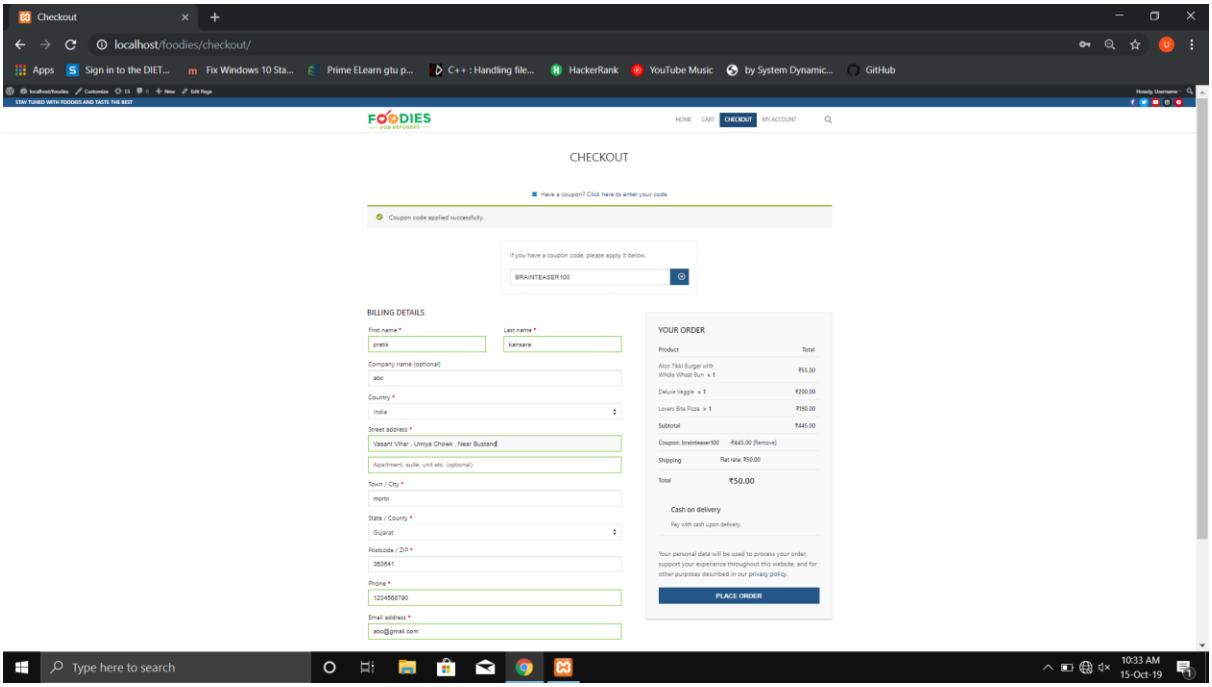


Fig. 6.8

- Checkout page contains form where user has to fill out their details.
- It also shows a summary of order.
- Coupon can be applied if the user has one.

6.9 User Login Page

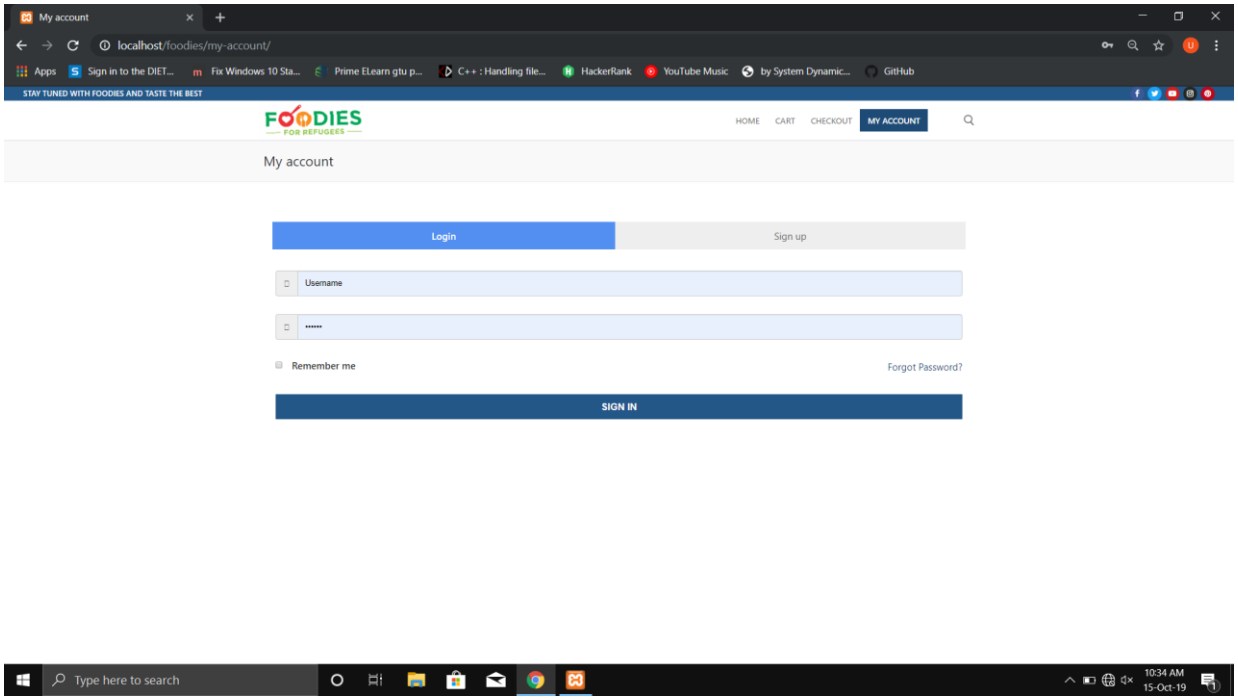


Fig. 6.9

- Users can login from here.
- Forgot password option is also available which sends a reset link to user through email.

6.10 Register Page

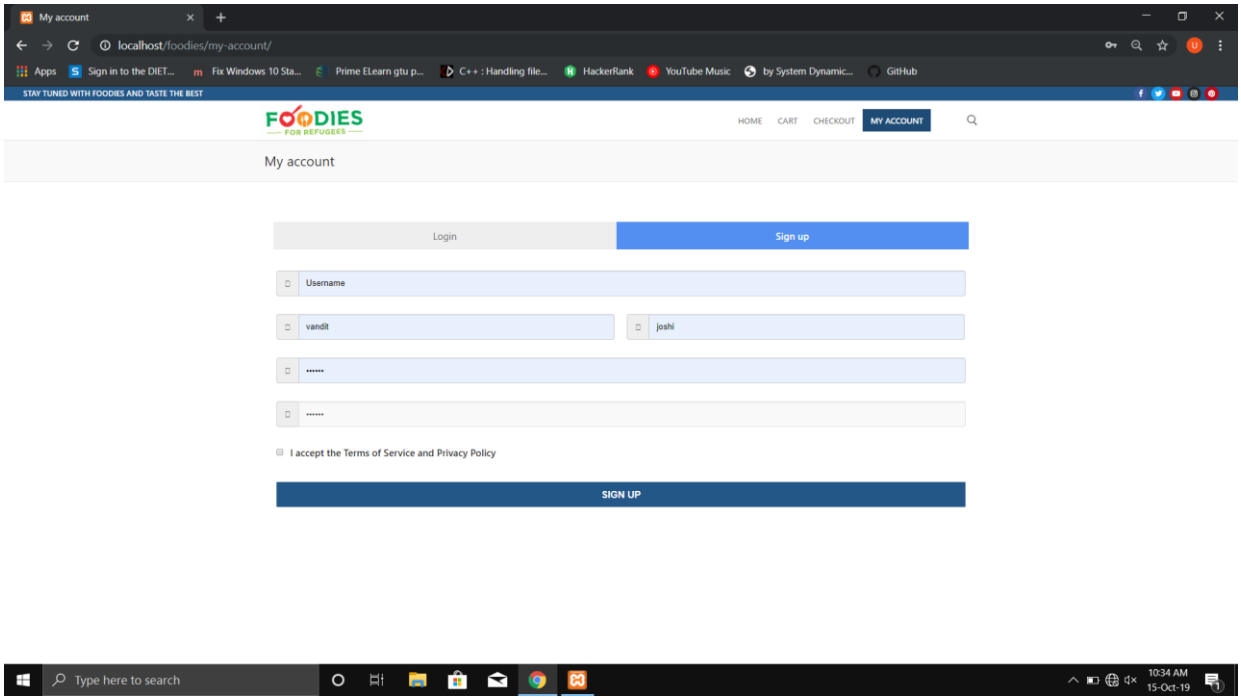


Fig. 6.10

- User can register by filling up the details above.
- User must accept the terms & conditions.

7. CONCLUSION

After completion of this project, users can order fast food of all types at their home quickly and easily. This will provide you with all the information about ingredients of food with different buying options

8. EXPECTED OUTCOME

Users will be able to code on our website in different languages like java,c,c++ without installing any component. And user also practice of code and solve different challenges provided by admin.