**A PROJECT REPORT**

**ON**

# "AUTOMATIC PITCH DECK CREATOR"

**Submitted to**

## UNIVERSITY OF MUMBAI

**In Partial Fulfilment of the Requirement for the Award of**

**BACHELOR'S DEGREE IN**
**COMPUTER ENGINEERING**

**BY**


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|---|---|
| **GADKARI MOIN ABDUL HAMID MUMTAZ** | **16DCO51** |
| **HAJIR MUNAF MUBARAK LATIFA** | **16DCO52** |
| **KHAN SULEMAN AYUB MAZHARUNNISSA** | **16DCO55** |
| **MUJAWAR RUKHSAR SHAHID NASREEN** | **14CO05** |

**UNDER THE GUIDANCE OF**
**Prof. MUHAMMED SALMAN SHAMSI**

**DEPARTMENT OF COMPUTER ENGINEERING**
**Anjuman-I-Islam's Kalsekar Technical Campus**
**SCHOOL OF ENGINEERING & TECHNOLOGY**
Plot No. 2 3, Sector - 16, Near Thana Naka,
Khandagaon, New Panvel - 410206


**2018-2019**

**AFFILIATED TO**

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SCHOOL OF ENGINEERING & TECHNOLOGY
**Plot No. 2 3, Sector - 16, Near Thana Naka,**
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# CERTIFICATE

This is certify that the project entitled

## "AUTOMATIC PITCH DECK CREATOR"

submitted by

| | |
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| **GADKARI MOIN ABDUL HAMID MUMTAZ** | **16DCO51** |
| **HAJIR MUNAF MUBARAK LATIFA** | **16DCO52** |
| **KHAN SULEMAN AYUB MAZHARUNNISSA** | **16DCO55** |
| **MUJAWAR RUKHSAR SHAHID NASREEN** | **14CO05** |

is a record of bonafide work carried out by them, in the partial fulfilment of the requirement for the award of Degree of Bachelor of Engineering (Computer Engineering) at ***Anjuman-I-Islam's Kalsekar Technical Campus, Navi Mumbai*** under the University of MUMBAI. This work is done during year 2018-2019, under our guidance.

**Date: / /**

**Prof. MUHAMMED SALMAN SHAMSI**
**Project Supervisor**

**Prof. KALPANA BODKE**
**Project Coordinator**

**Prof. TABREZ KHAN**
**HOD, Computer Department**

**DR. ABDUL RAZAK HONNUTAGI**
**Director**

**External Examiner**

# Acknowledgements

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GADKARI MOIN ABDUL HAMID MUMTAZ

HAJIR MUNAF MUBARAK LATIFA

KHAN SULEMAN AYUB MAZHARUNNISSA

MUJAWAR RUKHSAR SHAHID NASREEN

# Project I Approval for Bachelor of Engineering

This project entitled ***Äutomatic Pitch Deck Creator¨*** by ***Gadkari Moin Abdl Hamid Mumtaz, Hajir Munaf Mubarak Latifa, Khan Suleman Ayub Mazharunnissa, Mujawar Rukhsar Shahid Nasreen*** is approved for the degree of ***Bachelor of Engineering in Department of Computer Engineering.***

Examiners

1. .....
2. .....

Supervisors

1. .....
2. .....

Chairman

.....

## Declaration

We declare that this written submission represents our ideas in our own words and where others ideas or words have been included, we have adequately cited and referenced the original sources. We also declare that we have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in my submission. We understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

GADKARI MOIN ABDUL HAMID MUMTAZ
16DCO51

HAJIR MUNAF MUBARAK LATIFA
16DCO52

KHAN SULEMAN AYUB MAZHARUNNISSA
16DCO55

MUJAWAR RUKHSAR SHAHID NASREEN
14CO05

# ABSTRACT

In today s world establishment of startup's has become a trend. Which leads to lot of startups finding difficult to present themselves in the market for getting fund from investor and banks. Entrepreneurs also do not have an idea about what banks are exactly looking for and end up losing funding opportunities. Entrepreneurs don't have any idea about what is market status and which type of product is market looking for. A technological solution is required to educate the entrepreneurs about the market potential, the product type which is required in the market, the funding criteria, how to prepare about the financial support to propose to a bank for funds and further create a data in a format which could be accessed by any investor who wants to fund startups.

There is need of standardized and automated report for entrepreneur. Automatic pitch deck creator provide such platform for entrepreneur where the would provide some basic information as input to the platform and as an output they get a standardize pitch report. This pitch report might contain various details such as market competitors,risk factor etc which would help the entrepreneur to get a clear picture of his startup need, success etc.

**Keywords:** Pitch Decks,Entrepreneur,Investor,Machine Learning , Data Analytic ,Business Intelligence,Start-up.

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# Chapter 1

# Introduction

The number of startup has increased drastically in short span of time India. India ranks 3rd world wide in number of startup. Which proves in past few years India has been a start up hub.People are moving towards startup because they find being self dependent is much better then being an employee for someone else and they get less opportunity as fresher. As Entrepreneur they have only limited idea about the market, this is the main reason startups fails in high rates. Investor also don't have any idea about the success and failure ratio and most of the time they invest in wrong startups. How we can overcome from this problem? What is the solution for this problem? Here a technological solution is required to solve this problem. Our system provide that solution by creating a pitch report.

In this project, we address the problem faced by both entrepreneur and investor. According to the problem, Automatic Pitch Deck Creator establish the solution. Pitch deck is a presentation usually used to give your audience a snapshot of your business plan Market Size The number of individuals in a certain market who are potential buyers and/or sellers of a product or service. The proposed system is basically divided into four modules:

- Startup Comparator.
- CAC:CLV Calculator.
- Risk Analyzer.
- Investment Analyzer.

From these modules a generalized report is generated. The report contains:

- Same type of startups.
- Customer Acquisition Cost and Customer Lifetime Value ratio.

- What are the risk factors of startup, return of investment(ROI), rate of return(ROR), team ranking, Startup ranking.
- Fund required for the startup.

## 1.1 Project Goals and Objectives

### 1.1.1 Goals

The Goals of our system are:

- To create a generalized pitch report.
- Helps the entrepreneur to pitch their ideas.
- Helps investor to invest fund according to pitch report.
- To reduce the failures rate off startup in India and worldwide.

### 1.1.2 Objectives

Objective of this project is to provide a pitch report which would help the entrepreneur and investor to get better insights of the product idea they are planning to start. Instead of focusing on manual method of report which creates non-generalized format of report our proposed system will provide a generalized pitch report. The entrepreneur give input requires for propose system. The generated pitch report will help to analyze whether the startup would be success or failure. It also gives an idea of how much fund should invested. These factors will help both the user to take a decesion about the future of the startup at ease.

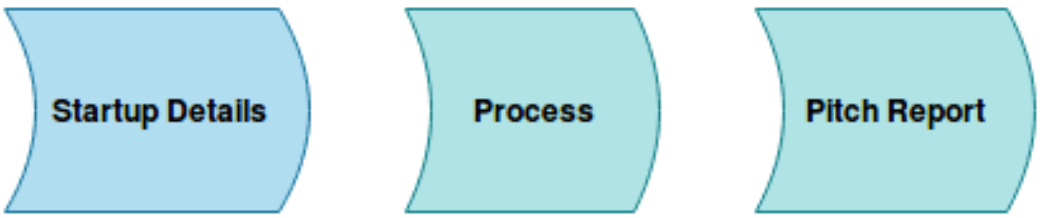


**Figure 1.1:** Automatic Pitch Report

## 1.2 Organization of Report

Chapter 1: Gives a brief introduction about our project.

Chapter 2 : Describes the literature review of the existing papers and the description about the application.

Chapter 3 : Discuss about the project planning and different roles and capability of the team members. Also talks about the budget of the project.

Chapter 4 : Describe the brief description of the srs and the other requirements of the project.

Chapter 5 : Shows the system design, functional requirements and different diagram of the project.

Chapter 6 : Shows Implementation of the different conference websites and coding.

Chapter 7 : Shows the different testings performed and the problems faced. It also shows snapshots of the current working application.

Chapter 8 : Describes the closure to the book and tries to conclude the work in the project and also mentions the future scopes as to where it would be used Chapter.

Chapter 9 : Describes a steps guide about using the final report.

# Chapter 2

# Literature Survey

## 2.1 Remaking the Pitch: Reuse Strategies in Entrepreneur's Pitch Decks

In this paper Clay Spinuzzi, Scott Nelson, Keela S.Thomson, Francesca Lorenzini, Rosemary A. , French, Gregory Pogue, Sidney D. Burback and Joel Momberger authors focus, As entrepreneurs learn to pitch ideas to unfamiliar markets, how do they revise their slide decks by reusing content from other professional communication genres? Specifically, what strategies do they follow when reusing content?[1]

### 2.1.1 Advantages of Paper

a. For marketing any product presentation is important.

b. Engaging people in a dialogue to produce a new product into the market.

c. Reuse of previous strategy can make beneficial effect on new product.

### 2.1.2 Disadvantages of Paper

a. It will take a lot of time for completion.

b. Familarity of market must require.

c. Reusing the content from previous data required a strong background knowledge.

### 2.1.3 How To Overcome The Problems Mentioned In Paper

a. We can add analyze and comparison to make pitch deck better.

## 2.2 Software Development in Startup Companies: The Greenfied Startup Model

In this paper by Carmine Giardino, Nicolo Paternoster, Michael Unterkalmsteiner, Tony Gorschek and Pekka Abrahamsson, authors performed this state-of-practice investigation using a grounded theory approach. This strategy allows start-ups to verify product and market fit, and to adjust the product trajectory according to early collected user feedback. The authors focus on the structure, planning, and control of software projects, in the period from idea conception to the first open beta release. The authors state that the vast majority of start-ups fail within two years of their creation, primarily due to self-destruction rather than competition. Operating in a chaotic, rapidly evolving and uncertain environment, software start-ups face intense time-pressure from the market and are exposed to relentless competition .To succeed in this environment start-ups need to be ready to adapt their product to new market demands while being constrained by very limited resources. Researchers can use the GSM as a starting point to understand how technical debt influences the future growth of start-up companies. The wave of disruption in new technologies has led non-startup companies to be more competitive, forcing themselves to undertake radical organizational and informational renewals, in an attempt to behave more like startups. Bach refers to startups as "a bunch of energetic and committed people without defined development processes".The limitation of resources leads to a focus on product development instead of establishing rigid processes. Start-ups typically develop software services that are licensed to customers rather than products that are sold and customized to a particular client.

### 2.2.1 Advantages of Paper

a. Tying the emergent theory to existing literature enhances the internal validity, generaliz-ability, and theoretical level of the theory building from a case study research because the findings often rest on a very limited number of cases.

b. Author discuss that product doesn't meet customer needs.

### 2.2.2 Disadvantages of Paper

a. This issue is partially mitigated as result of the theoretical saturation concept.

b. To work with GSM Model you need to analyse the market for your start-up product and follow old traditional approach which are time consuming .

c. The most significant challenge for early-stage startups is finding the sweet spot between being fast enough to enter the market early and controlling the amount of accumulated technical debt.

### 2.2.3 How To Overcome The Problems Mentioned In Paper

a. This issue is partially mitigated as result of the theoretical saturation concept.

b. To work with GSM Model you need to analyse the market for your start-up product and follow old traditional approach which are time consuming[2].

c. The most significant challenge for early-stage startups is finding the sweet spot between being fast enough to enter the market early and controlling the amount of accumulated technical debt.

## 2.3 Comparative Analysis Of Classification Algorithms

In this paper R. Muhamedyev, K. Yakunin, S. Iskakov, S. Sainova, A.Abdilmanova author focus the method of machine learning refer to a broad class of algorithms: from decision trees,metric algorithms,such as K-NN,Supports Vector Machine(SVM) to Artificial Neural Network(ANN)[5].

### 2.3.1 Advantages of Paper

a. This paper uses feature selection method that provides us a way of reducing computation time.

b. Through this paper, prediction performance is improved.

### 2.3.2 Disadvantages of Paper

As compared to Neural Network They are not trainable as neural network.

### 2.3.3 How To Overcome The Problems Mentioned In Paper

a. The Two Neural Network are properly trainable (kNN and ANN) of three algorithms are properly trainable.

b. They are not over fitting and under fitting.

## 2.4 Technical Review

Our system is basically based on Data Analytic and Business Intelligence techniques which includes:

- Data scrapping technique
- Data Mining

**For scrapping we have used scrapping tools:**

- Python selenium web driver
- Beautiful soup
- Grep

**For Front-end Designing we used technologies like:**

- Bootstrap
- HTML
- CSS
- JavaScript

For Back-end we have used:

- Flask
- MongoDB
- Python

### 2.4.1 Advantages of Technology

a. HTML/CSS:
HyperText Markup Language, commonly referred to as HTML, is the standard markup language used to create web pages. Along with CSS, and JavaScript, HTML is a cornerstone technology used to create web pages, as well as to create user interface for mobile and websites. Web browsers can read HTML files and render them into visible or audible web pages. HTML describes the structure of a website semantically and, before advent of Cascading Style Sheet(CSS),

included cues for the presentation or appearance of the document(web page), making it a markup language, rather than a programming language.

b. Python:
Python is a object oriented, high-level programming language with integrated dynamic semantics primarily for web and app development. It is extremely attractive in the field of Rapid Application Development because it offers dynamic typing and dynamic binding option.
Python is relatively simple, so it's easy to learn since it requires a unique syntax that focuses on readability. Developers can read and translate Python code much easier than other languages. In turn, this reduces the cost of program maintenance and development because it allows team to work collaboratively without significant language and experience barrier.

c. MongoDB:
MongoDB is a document database. Each database contains collections which in turn contains documents.Each document can be different with varying number of field. The size and content of each document can be different from each other, such as PDF documents, site specific browsers, and desktop widgets. Newer and faster JavaScript virtual machines(VMs) and platform built upon them have also increased the popularity of JavaScript for server-side Web Application.

d. Flask:
Flask was designed to be easy to use and extend. The idea behind Flask is to build a solid foundation for web applications of different complexity. From then on you are free to plug in any extensions you think you need. Also you are free to build your own modules. Flask is great for all kinds of projects. It's especially good for prototyping. Flask depends on two external libraries: the Jinja2 template engine and the Werkzeug WSGI toolkit.

### 2.4.2 Reasons To Use This Technology

a. We used MongoDB for database it can cope up with unstructured data format. MongoDB is a document-oriented database. Instead of storing your data in tables made out of individual rows, like a relational database does, stores your data in collection made out of individual documents. In MongoDB, a document is a big JSON blob with no particular format or schema.

b. We used Selenium WebDriver because,Selenium is a simple programming interface tools to overcome the limitations of other Selenium APIs. In most of web

application related scenarios. Selenium WebDrivers is the best tool to achieve. By integrating automation with framework, we can simplify our task and get the formatted results. It is a methodology to build and successfully execute test automation.

c. We used Flask for back-end. Is is considered more Pythonic than the Django web framework because in common situations the equivalent Flask web application is more explicit. Flask uses a specific syntax to create links from a page to another. This is fact generates the link dynamically according to the decorator set to the function linked to. In addition it takes care of where the application is deployed.

# Chapter 3

# Project Planning

## 3.1 Members and Capabilities

**Table 3.1:** Table of Capabilities

| SR. No | Name of Member | Capabilities |
|---|---|---|
| 1 | Gadkari Moin | Laravel,MongoDB,Flask,JavaScript,JavaScript Framework |
| 2 | Hajir Munaf | SAS,Laravel,MongoDB,Flask,JavaScript,JavaScript Framework |
| 3 | Khan Suleman | Android |
| 4 | Mujawar Rukhsar | HTML,CSS,Bootstrap |

Work Breakdown Structure

## 3.2 Roles and Responsibilities

**Table 3.2:** Table of Responsibilities

| SR. No | Name of Member | Role | Responsibilities |
|---|---|---|---|
| 1 | Gadkari Moin | Team Leader | Database,Backend |
| 2 | Hajir Munaf | Member | UI Design, Backend |
| 3 | Khan Suleman | Member | Frontend |
| 4 | Mujawar Rukhsar | Member | Documentation |

## 3.3 Assumptions and Constraints

Assumption : Assumption is that the user provides proper input of the startup related data and server responds efficiently to the users inputs. The created report will help the entrepreneur and investor to take right decision about the startup.

Constraint : The major constraint is that if the database crashes or stop responding, then the whole system may go down.

## 3.4 Project Management Approach

We have use Scrum methodology for the development of our project. The scrum methodology in project management process emphasize daily communication and reassessment of plans. In this a self organize team maintains the project planning. Team leader decided which person will do which task and how the problem will solve. A cross functional team is present where every on is needed to take feature from idea to implementation.

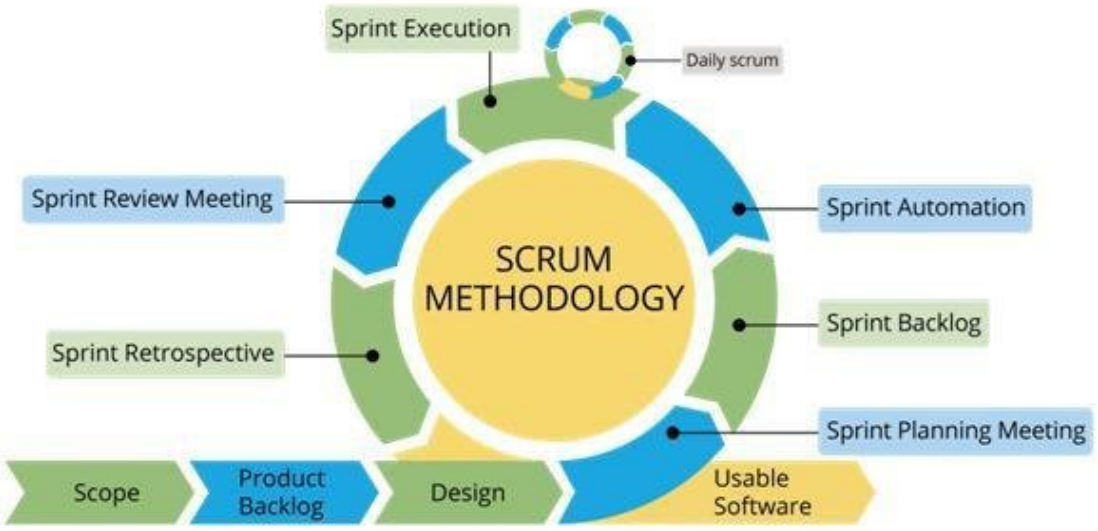


**Figure 3.1:** Scrum Model

## 3.5 Ground Rules for the Project

We considered the following ground roles:

1. We treat each other with respect.
2. We intend to develop personal relationships to enhance trust and open communication.
3. We value constructive feedback. We will avoid begin defensive and give feedback in a constructive manner.
4. As team members, we always pitch in to help where necessary to help solve problems and catch-up on behind schedule work.
5. Additional meetings can be schedule to discuss critical issues or tabled items upon discussion and agreement with the team leader.

6. One person talks at a time: there are no side discussion.
7. When we pose an issue or a problem, we will also try to present a solution.

## 3.6 Project Budget

The budget for this project is very low as most of the tools we use are open source. Following are the budget for the project

1. Operating System : Linux mint(Open Source),Windows(Open Source)
2. Python Programming Language(Open Source)
3. MongoDB : Open Source
4. Frame Work : Flask(Open Source)

## 3.7 Project Timeline

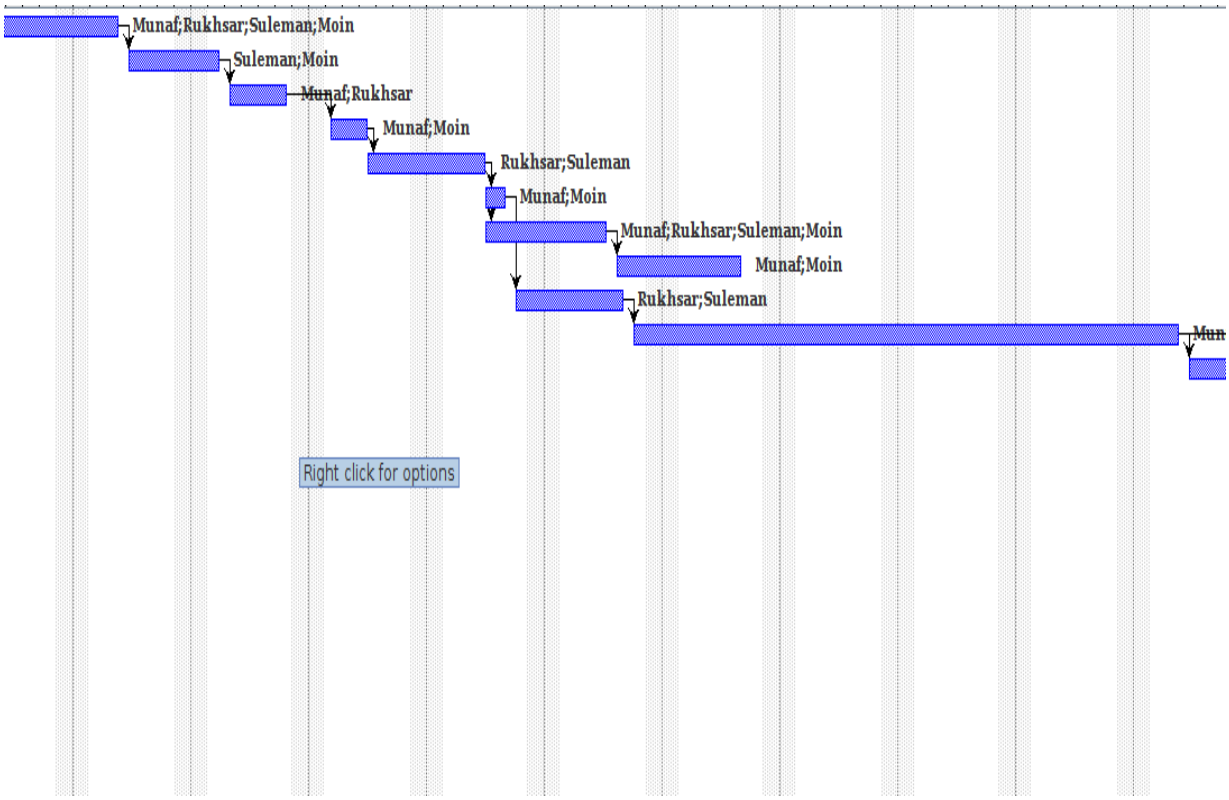


**Figure 3.2:** Project Timeline 1

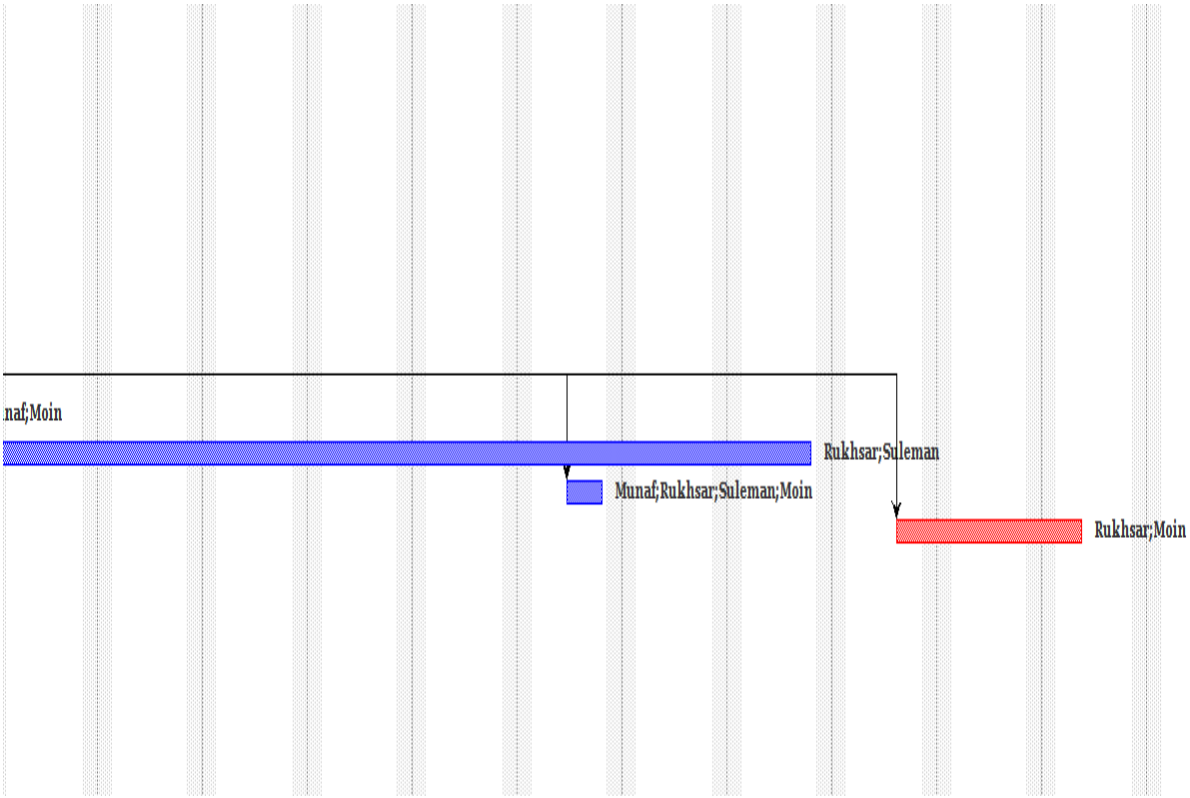


**Figure 3.3:** Project Timeline 2

# Chapter 4

# Software Requirements Specification

## 4.1 Overall Description

### 4.1.1 Product Perspective

The origin of our product is that our project is totally based on the startup need and demand. It will provide CAC:CLV ratio, success failure ratio, ROI, ROR. It is not provided by other pitch deck creator site. It will be useful for those entrepreneur who like to build a startup with new ideas and just a standardize report to demonstrate it

### 4.1.2 Product Features

The major feature of our system is to provide a pitch report which will contain

- All the compared startup with respective to the data set available with us.
- CAC:CLV ratio for product.
- Risk based on the compared startup and CAC:CLV ratio, team ranking, startup ranking.
- Investment on the product as per the report generated.

### 4.1.3 User Classes and Characteristics

Different users will use the product differently depending on their needs and hence, the user class will change according to the need of the user. But the basic characteristics of the classes remain the same where the user will primary interact will three main class of product that is registration, enter the required details, get the pitch report.The rest are less important according to this three class.

### 4.1.4 Operating Environment

The environment in which the system will operate is platform-independent. The only important software that the use will need is any web browser where the user can use our system on web efficiently.

### 4.1.5 Design and Implementation Constraints

As the project is full analysis it was difficult to design a UI which would properly relate the analysis and show up the analysis in an effective way. As implementation constraints there was very less dataset available for the project which made machine learning techniques difficult to implement and limited our scope.

## 4.2 System Features

The major feature of our system is to generate a pitch report and investment option for investor and also feedback from experts.

### 4.2.1 System Feature

- User Authentication  Authorization
- Startup Comparison
- Investment Details
- Generation of Pitch

#### Description and Priority

User Authentication:This feature will authenticate user for the further use of features provided by our system.
Details of team member:This feature will help the entrepreneur to check which member fit in the team for the better working of the startup.
Startup Comparison : User can compare it's startup according what type of startup already exists.
Investment details:Here entrepreneur get the idea how much investment required and investor also get the idea weather they has to invest or not.
Pitch report:This is the major feature of our system, here a standardize report for presentation is given which can help the user for working further.

**Stimulus/Response Sequences**

1. The user need to login into the system.
2. The entrepreneur will enter all the required data for the report creation.
3. The investor check the report and decide the action about the startup.
4. The entrepreneur get the report and present it on different investors and banks.

**Functional Requirements**

a. The software provides good graphical interface for the user.The user can create, update, view the details of the system.

b. The user can view the system any time.

**Hardware Interface:**
Operating system: Linux, Windows
Hard disk: 50GB
RAM: 2GB

**Software Interface:**
Python Selenium Webdriver
HTML, CSS, MongoDB, Flask
Sublime Editor

## 4.3 External Interface Requirements

### 4.3.1 User Interfaces

The Web Server must provide a user interface that will accessible through any internet browser the major ones being Google, Chrome and Internet Explorer, Mozilla Firefox.

### 4.3.2 Hardware Interfaces

We don't required any hardware interface in our project. So we required only software interface in our project.

### 4.3.3 Software Interfaces

Operating system: Linux, Windows
Database: MongoDB
Tool: Selenium Web driver

### 4.3.4 Communications Interfaces

1. The website support all type of browser.
2. The interface between the database and the system will be done by using http protocol.

## 4.4 Nonfunctional Requirements

### 4.4.1 Performance Requirements

The system must be interactive and the delay involved must be less. When we connecting to the server the delay is because the data stored or manage online very safely.

### 4.4.2 Safety Requirements

If there is any damage to the servers then the whole system will go down. The database should be periodically maintained and have to keep upon it. The data which is updated by the user should be committed in the database.

### 4.4.3 Security Requirements

The major security requirements for the system will be the safeguarding of the user data from any kind of exploit. In order to protect the user data the data is not stored in local databases we will be storing in the cloud for better security.

# Chapter 5

# System Design

## 5.1 System Requirements Definition

In this system we will solve the problem of startups. The report will display essential data which is recognize by using different data mining techniques and algorithms.Only required data will displayed that belong to the user inputs.The objective of the requirements definition phase is to derive the two types of requirements:

### 5.1.1 Functional requirements

1. Crawling: Its play a significant role in our project. We have use gspr tool.
2. Extraction: Once the crawling process is completed we have extract the data from the website.
3. Data Stored: Store function is very essential to store the data.In our project it will store the data into database.

#### Use-case Diagram

Use case diagram are usually referred to as behaviour diagram used to describe a set of actions(use case) that some system or systems(subject) should or can perform in collaboration with one or more external users of the system(actors). Each use case should provide some observable and valuable result to the actors or other stakeholder of the system.

The below figure shows the use case diagram of our system which contains the following component.

- Registration
- Update account information

- Account view
- Startup details
- Report generation

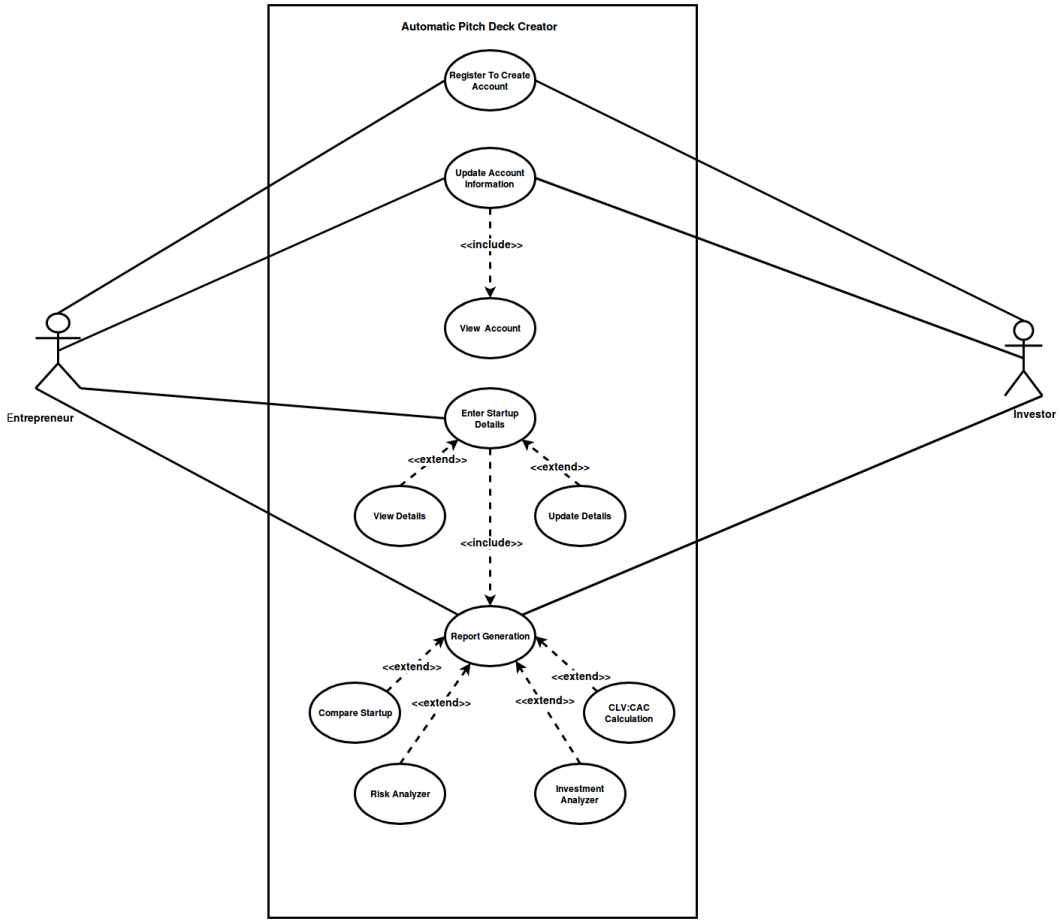


**Figure 5.1:** Usecase Diagram

**Data-flow Diagram**

DFD Level 0:-It contains our system Automatic Pitch Deck Creator, Entrepreneur, Investor has a part of process. Firstly user will enter details and system process as per details. In other side investor analyze the partial report. At the end a generalized is generate.

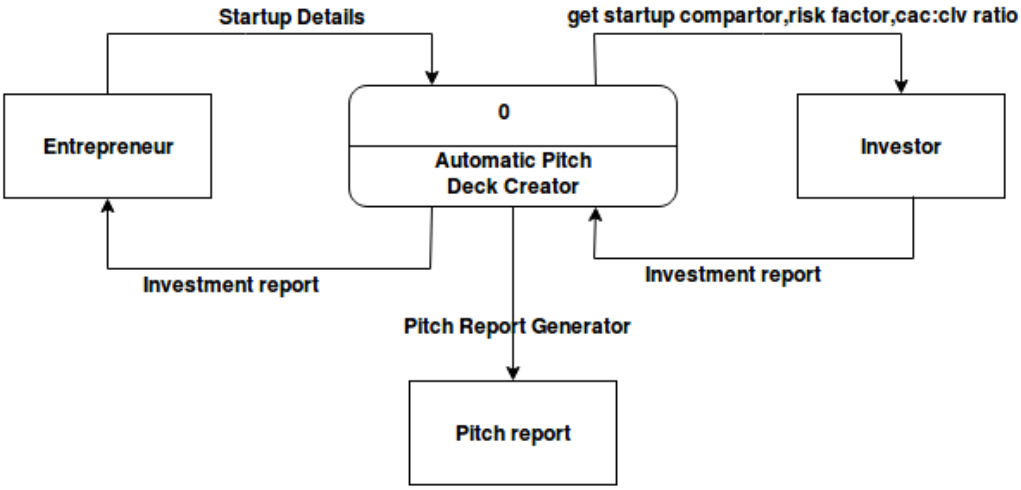


**Figure 5.2:** Data Flow Diagram Level 0

DFD Level 1:-In DFD level 1 the level 0 is enhanced into a greater extend to show the proper process and the data flow of the process.In this the process enhanced as startup comparator, CAC:CLV ratio calculator, risk analyzer, investment analyzer. All over the report will generate as slide.

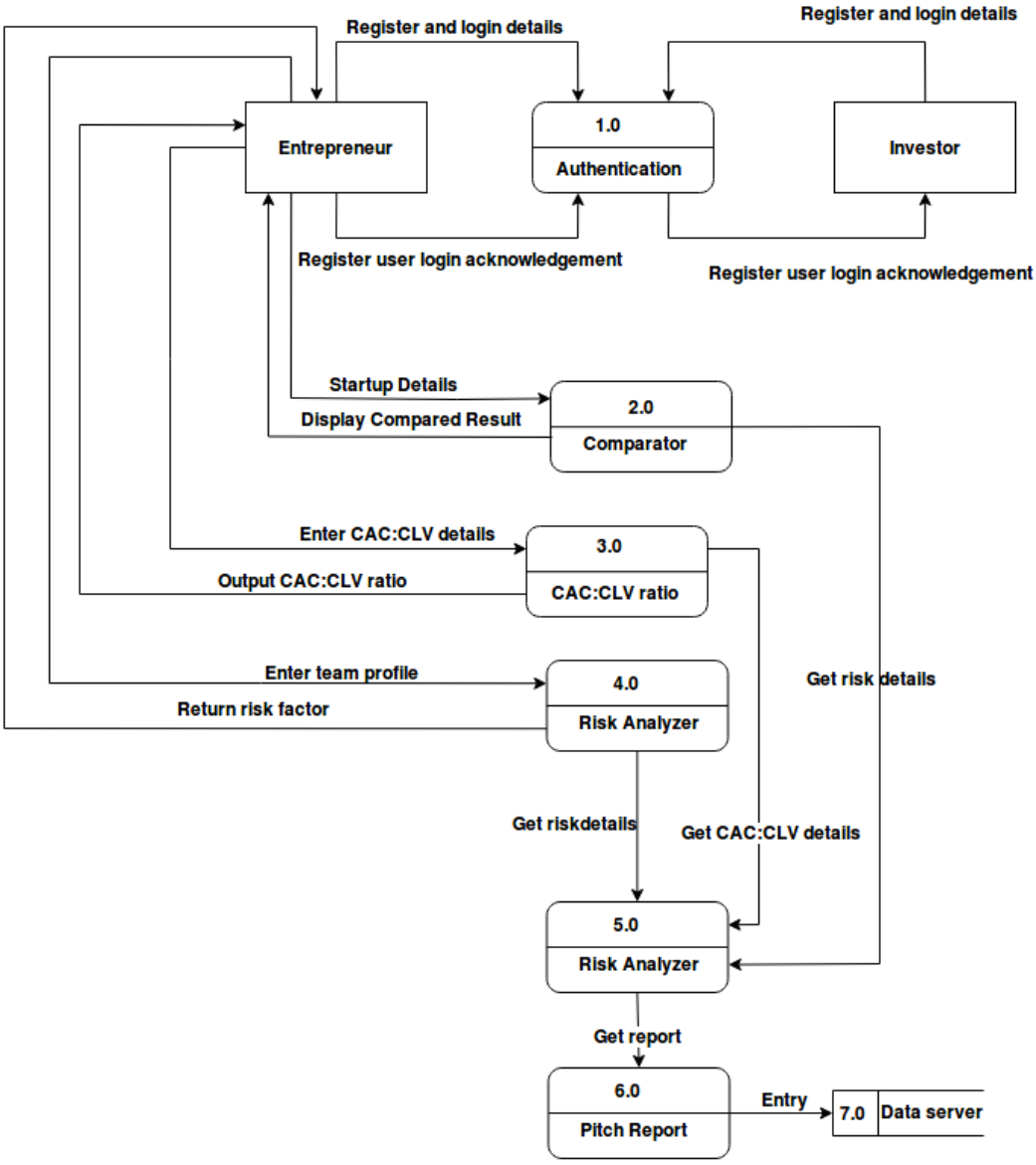


**Figure 5.3:** Data Flow Diagram Level 1

### 5.1.2 System requirements (non-functional requirements)

These are non-functional system properties such as availability, performance and safety etc. They define functions of a system, services and operational constraints in detail.

## 5.2 System Architecture Design

System architecture of our system gives the overview of the project.

- The data given by Entrepreneur is taken as an input and it will be pass through different algorithms to sort all the required data for generate report.
- If success is return in the output the investor will invest if he/she wants.
- If the output is failure than the modification will be list out them.

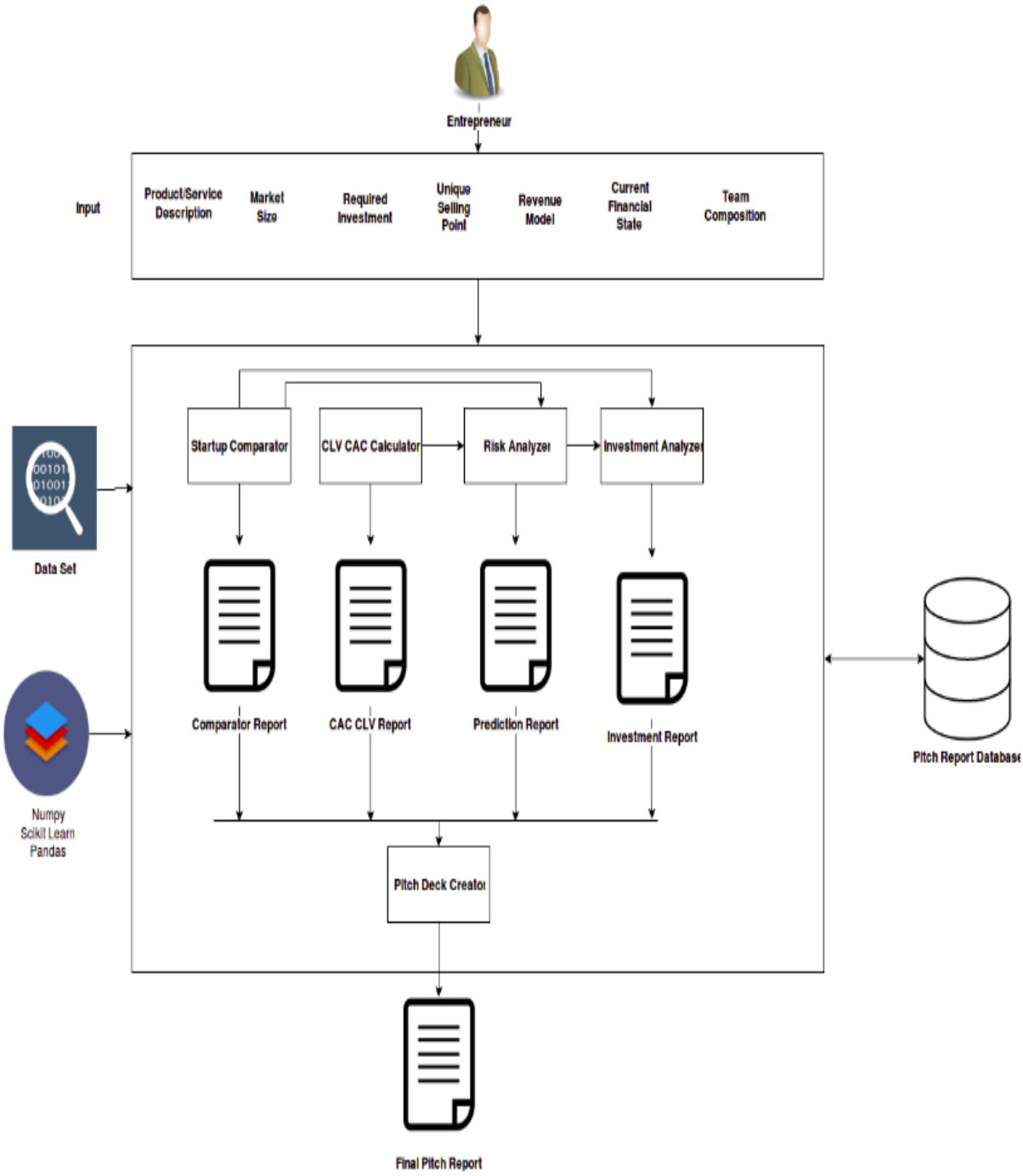


**Figure 5.4:** System Architecture

## 5.3 Sub-system Development

In our project we scrap the data set from angles, crunch base, startup ranking which is related to startup. All the collected data is stored in database as per the requirements of the system. We have basically four modules which are working for the creation of pitch report.

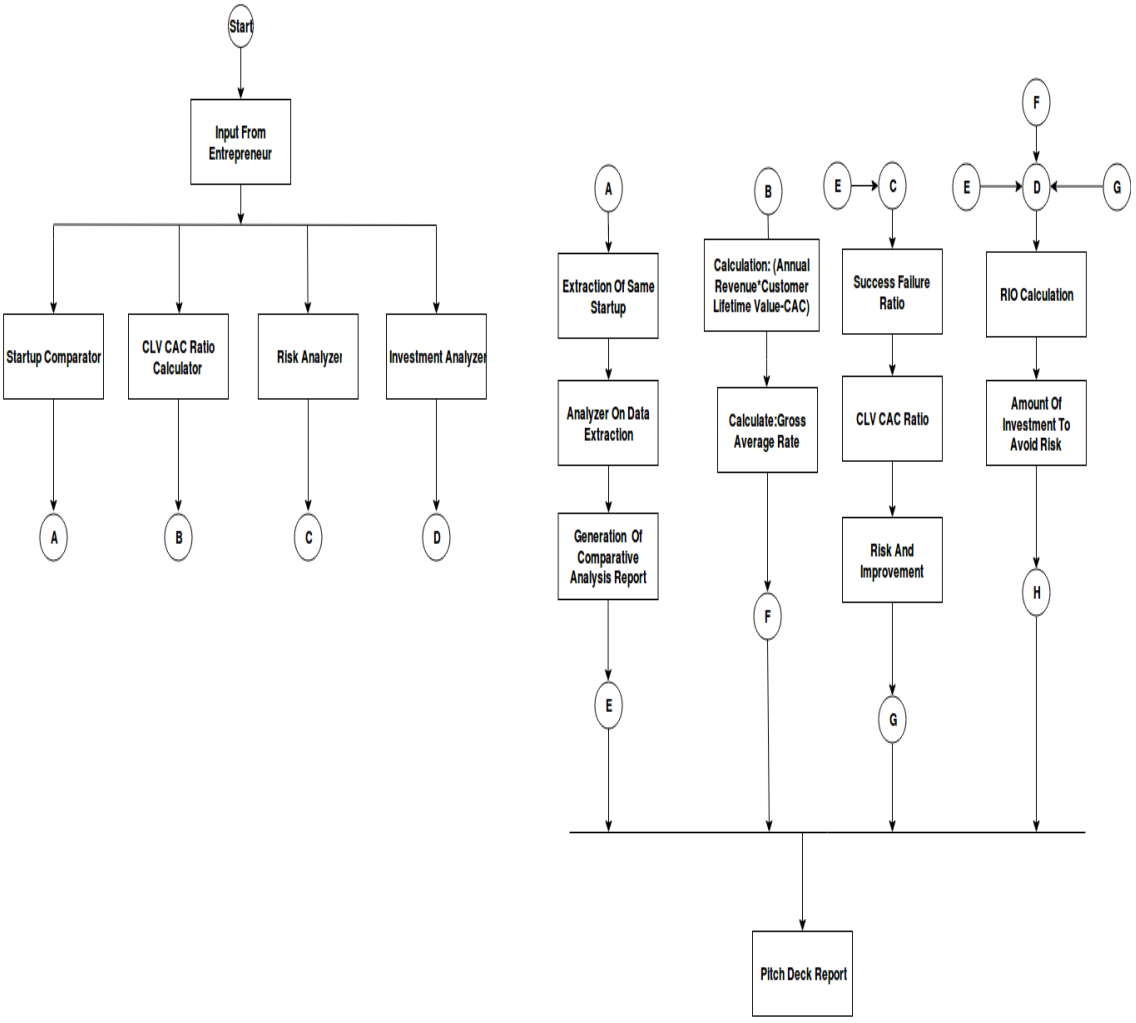


**Figure 5.5:** Overall Flow Of System

### 5.3.1 Startup Comparator

In this module we will compare the startup of user with number of startup which were founded before but are of same type. A total comparison would be done with keeping all factors in mind specially the USP factor of the user's startup.

### 5.3.2 CAC:CLV Calculator

This module we are going to help the innovator of start-up to calculate the amount of money he needs to put into the market of customer acquisition. We would calculate the customer live value that is how much a live customer would value to the start-up.

### 5.3.3 Risk Analyzer

In this module risk factor, ROI(return of investment) and ROR(rate of return) is calculate by checking the team ranking and startup profile of entrepreneur. The generated information is helpful to decide the startup success and failure.

### 5.3.4 Investment Analyzer

In this module the investor would be the one getting all the required knowledge of a particular startup he is looking to invest on and on the bases of output of pervious 3 modules predictions would be done that should the investor invest into this product idea of the startup.

## 5.4 Systems Integration

### 5.4.1 Class Diagram

A class diagram in the Unified Modeling Language (UML) is a type of static structure diagram that describes the structure of a system by showing system's classes, their attributes, operations, and the relationship among objects.

The below figure shows the class diagram of our system which describe the relationship between the modules of system and the major components are:

- Entrepreneur
- Startup Comparator

- CAC:CLV calculator
- Risk analyzer
- Investment analyzer
- Pitch report

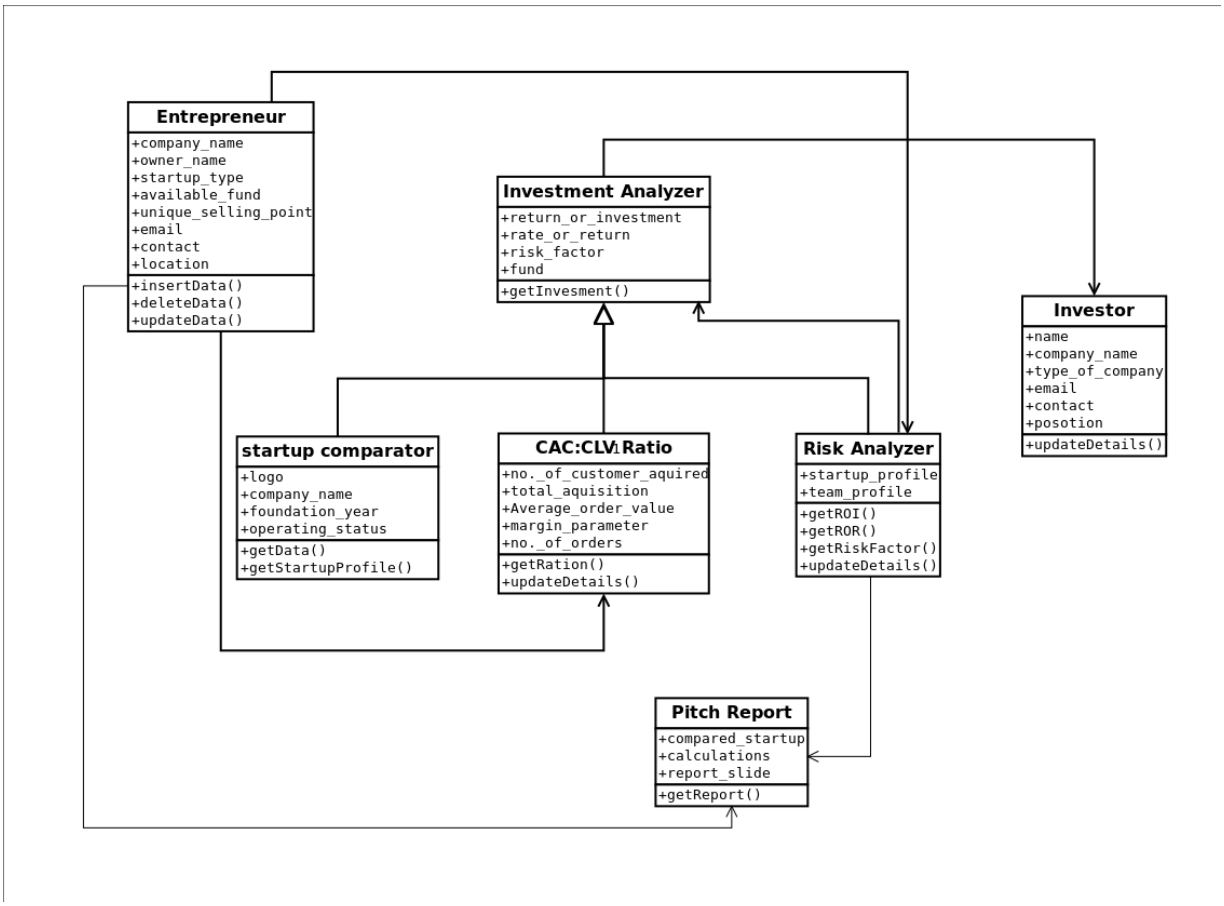


**Figure 5.6:** Class Diagram

### 5.4.2 Sequence Diagram

A sequence diagram is an interaction diagram that shows how objects operates with one another and in what order. It is a construct of a message sequence chart.

The following figure describe the sequence diagram of our system.

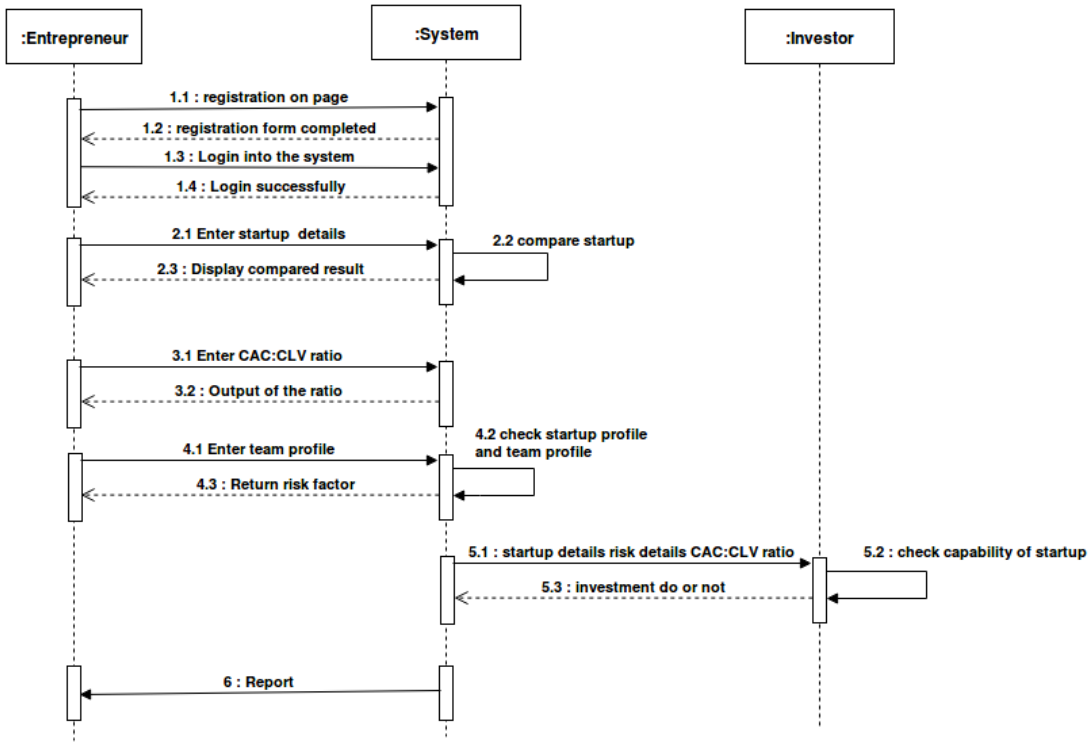


**Figure 5.7:** Sequence Diagram

### 5.4.3 Component Diagram

A component diagram, also known as a UML component diagram, describe the organization and wiring of the pyhsical component is a system.

The following figure describe the component diagram of our system.

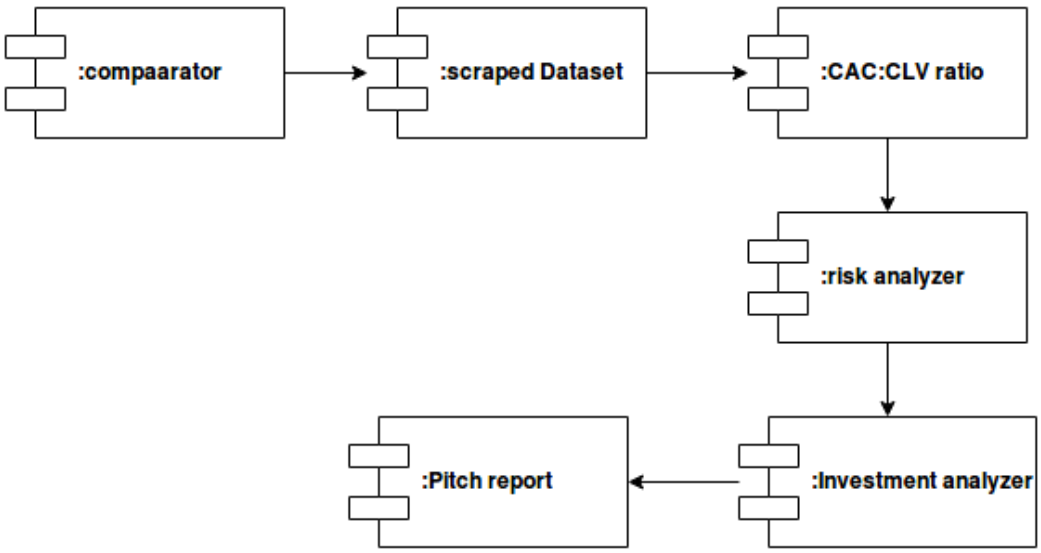


**Figure 5.8:** Component Diagram

### 5.4.4 Deployment Diagram

Deployment diagram is a structure diagram which shows architecture of the system as deployment of software artificial to deployment targets.

The following figure describe the deployment diagram of our system.

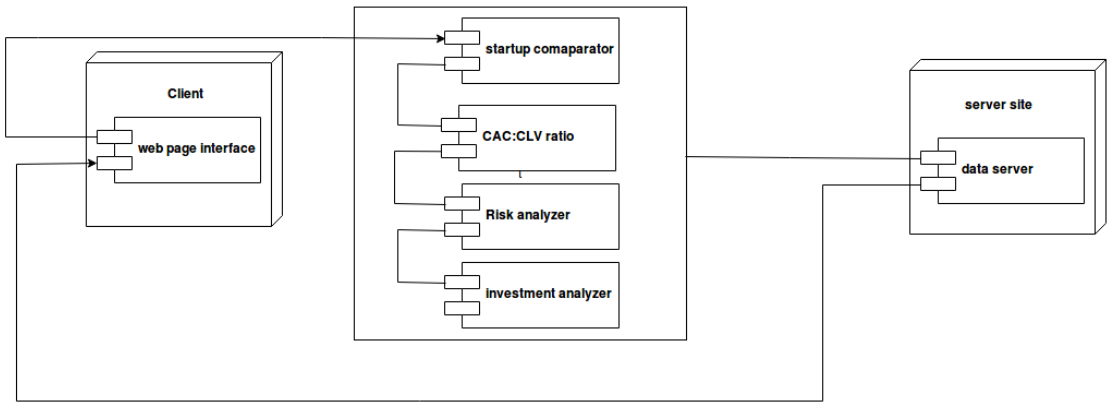


**Figure 5.9:** Deployment Diagram

# Chapter 6

# Implementation

## 6.1 User Dashboard

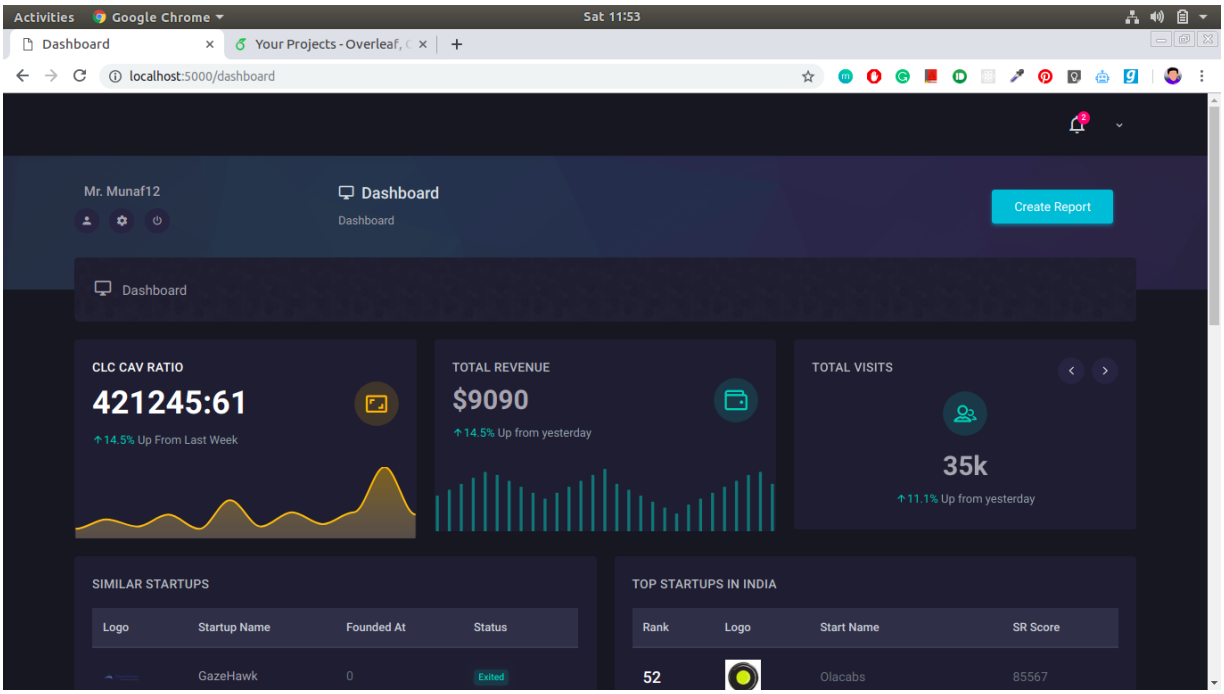


**Figure 6.1:** User Dashboard

```
@app.route('/dashboard')
def dash():
    score = 0
    info = mongo.db.users
    login_user = info.find_one({'name':session['name']})

    user_info = login_user['info']
    team_details = login_user['team_details']
    tot_member = len(team_details)
    prod_type = user_info[0]['product_type']
    location =login_user['info'][0]['location']

    invest_gained = login_user['investment_details'][0]['investment_gained']
    total_required_investment = login_user['investment_details'][0]['
        required_investment']

```

```
    startup_dict  = read_csv(prod_type)
    n_items = take(10, startup_dict.items())
    rankStartups = startupRankLoc(location)
    r_items = take(9, rankStartups.items())

    for i in team_details:
        level = i['level']
        exp = i['experience']
        score += playerScore(level , exp)
        pp.pprint(score)

    team_percent = int(teamScore(tot_member, score))

    rates = calculateROI(int(invest_gained),int(total_required_investment))
    total_returns = list(rates)
    teamPercent = team_percent
    total_returns.append(teamPercent)
    riskFactor = statistics.mean(total_returns)

    pp.pprint(team_percent)
    return render_template('admin/dashboard.html', user_info = user_info,
    startup_dict = startup_dict,
    login_user = login_user,
    startups = n_items,
    locstartups = r_items,
    location = location,
    team_details= team_details,
    tot_member=tot_member,
    team_percent = team_percent,
    riskfact = round(riskFactor,2))
```

## 6.2 Similar Type of Startup

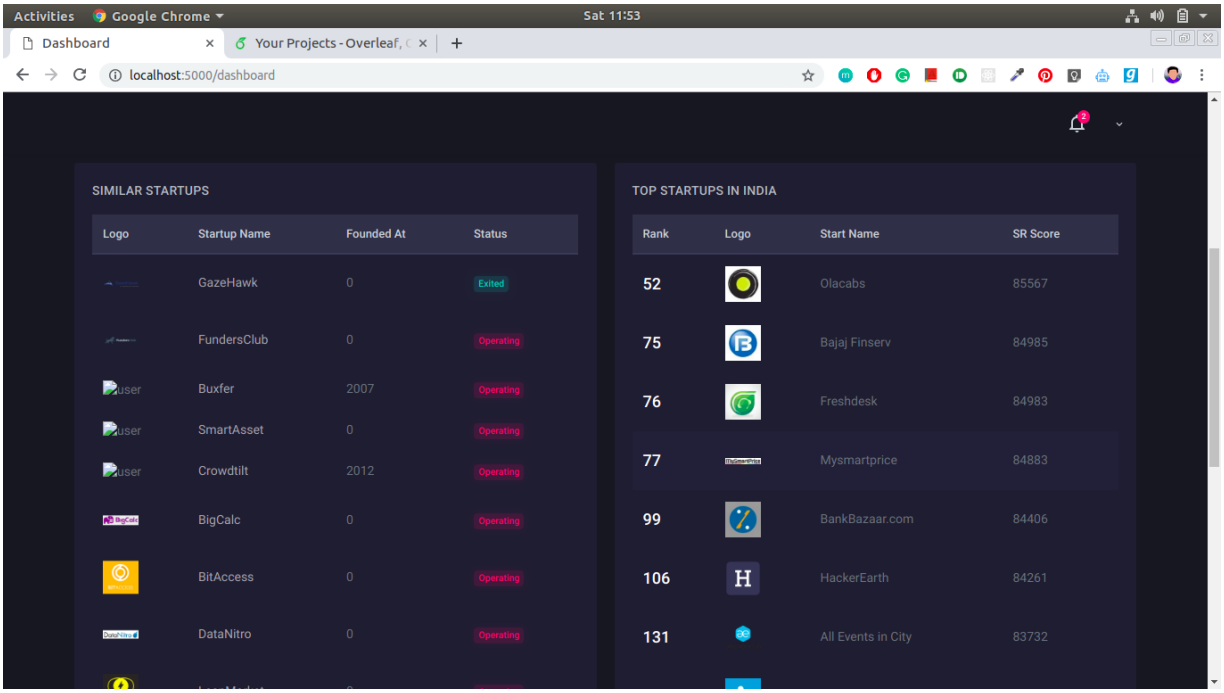


**Figure 6.2:** Similar Type Of Startup

```
def read_csv(category):
    startup_dict = {}
    # csv = open("START.csv","r","encoding = utf-8")
    dataset = pd.read_csv("datasets/START.csv")
    name = (dataset.iloc[:, 0:1]).values.tolist()
    logo = (dataset.iloc[:, 6:7]).values.tolist()
    status = (dataset.iloc[:, 1:2]).values.tolist()
    fund = (dataset.iloc[:, 8:9]).values.tolist()
    website_link = (dataset.iloc[:, 9:10]).values.tolist()
    founded = (dataset.iloc[:, 2:3]).values.tolist()
    categories = (dataset.iloc[:, 4:5]).values.tolist()
    # print(categories)
    categories = sum(categories, [])
    name = sum(name, [])
    logo = sum(logo, [])
    status = sum(status, [])
    fund = sum(fund,[])
    website_link = sum(website_link, [])
    founded = sum(founded, [])
    startup_list = []
    startup_key = ''
    startup_name = []
    startup_logo = []
    startup_foundedat =[]
    startup_website = []
    startup_status = []

    for j in range(len(categories)-1):
        if (category) in str(categories[j]):
            startup_key = name[j]
            startup_list.append(logo[j])
            startup_list.append(founded[j])
```

```
            startup_list.append(website_link[j])
            startup_list.append(status[j])
            # startup_list.append(fund[j])
            startup_dict[startup_key] = startup_list
            startup_list = []
    # print(startup_name, startup_foundedat,)

    return startup_dict
@app.route('/startup_comp', methods = ['GET', 'POST'])
def startup_comparator():
    if request.method == "POST":
        startup = mongo.db.startup
        p_type = request.form['p_type']
        startup_dict = read_csv(p_type)
        startup.insert({'products':[ {'product_name' : request.form['p_name'], '
            product_type' : request.form['p_type'], 'usp' : request.form['usp']}
             ] })
        return render_template('startup_compare.html', dic = startup_dict ,name
            = True)
    else:
        return render_template('startup_compare.html' ,name = False)

Startups with same location:

def startupRankLoc(location):
    startup_dict = {}
    # csv = open("START.csv","r","encoding = utf-8")
    dataset = pd.read_csv("datasets/startup_ranking.csv",delimiter=',', names =
        ['rank', 'startup', 'startup_logo', 'sr_score', 'description', 'location
        ','none'])
    startupLoc = dataset[dataset.location == location].head(10)
    startupLoc = startupLoc.to_dict('index')
    # pp.pprint(startupLoc)
    return startupLoc
```

## 6.3 CLV:CAC Calculator

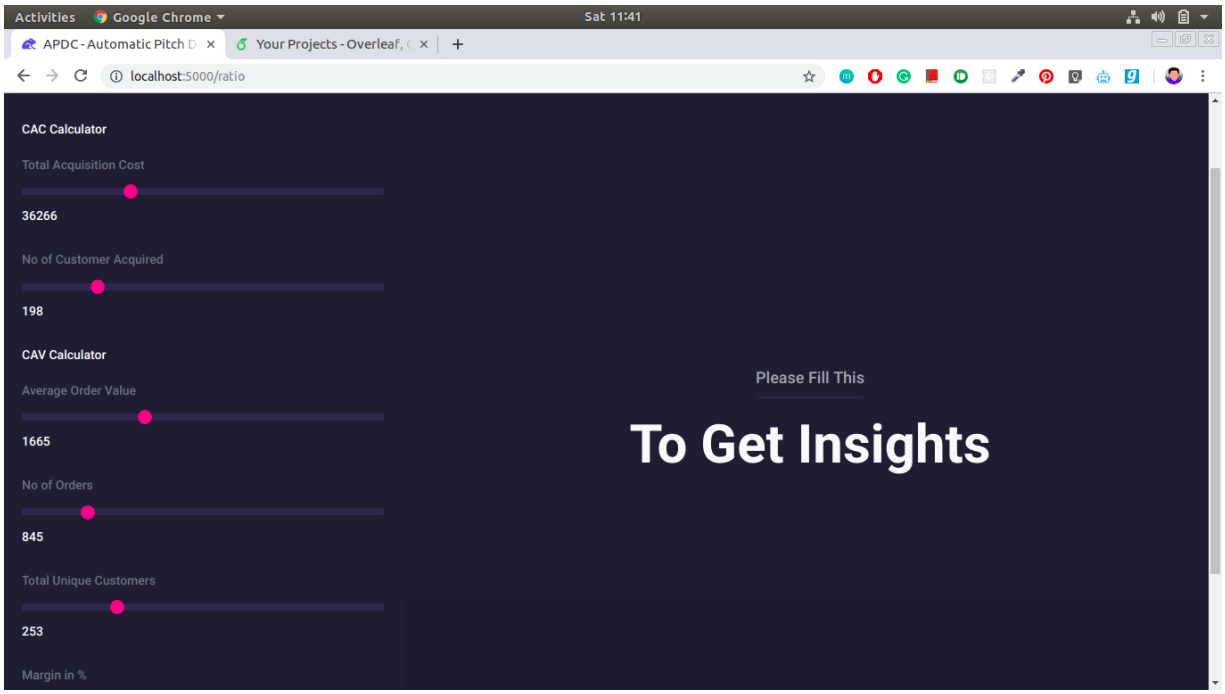


**Figure 6.3:** CLV:CAC Calculator

```
@app.route('/ratio',methods=['GET','POST'])
def cac_ratio():
    if request.method == 'POST':
        clv_cac = mongo.db.users
        login_user = clv_cac.find_one({'name':session['name']})
        #print(login_user)
        tot_acqui = int(request.form['arc'])
        noCust =int (request.form['acl'])
        avgorder = int(request.form['avgorder'])
        noorder = int(request.form['nooforder'])
        uniqueCust = int(request.form['uniqueCust'])
        pf =  int(noorder/uniqueCust)
        pro = int(request.form['profit'])
        cac = int(tot_acqui / noCust)
        clv = int(avgorder * pf * uniqueCust)
        ratio = calculate_aspect(clv,cac)
        print(ratio)
        clv_cac.update_one(
                                {"_id": login_user["_id"]},
                                {"$set":
                                    {'ratio':[
                                                {
                                                    'total_acquistion_cost':
                                                        tot_acqui,'no_customer':
                                                        noCust,'average_order':
                                                        avgorder,'no_order':
                                                        noorder,'unique_customer
                                                        ':uniqueCust,'
                                                        purchase_frequency':pf,'
                                                        profit':pro,'cac':cac,'
                                                        clv':clv,'ratio':ratio
                                                }
```

```
                                                    ]
                                                }
                                            }
                                        )
            return redirect('/investments')
        return render_template('admin/values.html')


Thanks, I'll check it out.
Thank you!
Got it, thanks!
```

## 6.4 ROI Calculator

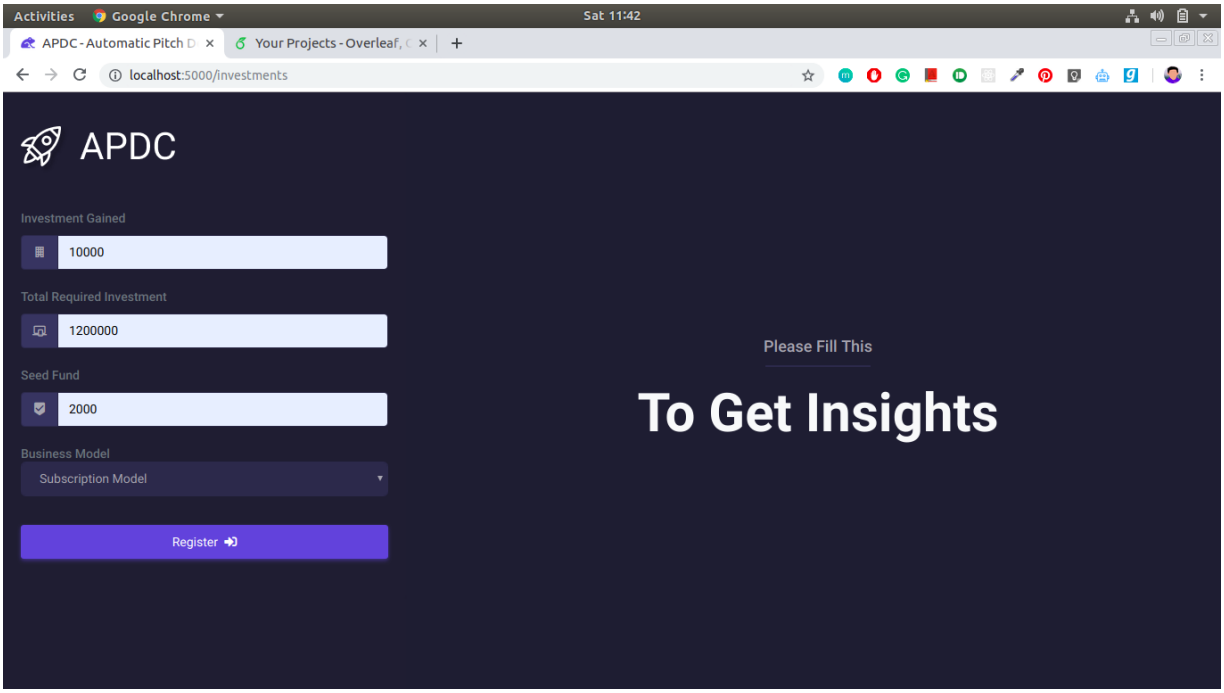


**Figure 6.4:** ROI Calculator

```
  @app.route('/calcRoi', methods = ['GET','POST'])
def calcRoi():
    if request.method == 'POST':
        investment_details = mongo.db.users
        login_user = investment_details.find_one({'name':session['name']})
        pp.pprint(login_user['investment_details'][0]['required_investment'])
        invest_gained = login_user['investment_details'][0]['investment_gained']
        total_required_investment = login_user['investment_details'][0]['
            required_investment']
        roi = float((abs(invest_gained - total_required_investment) /
            total_required_investment) * 100)
        #print('The ROI in % is :',roi)
        #IRR Calculation
        d0 = date(request.form['date1'])
        d1 = date(request.form['date2'])
        delta = d1 - d0
```

```
15          year = math.floor(delta.days / 365)
16          roi_year = ((invest_gained - total_required_investment /
                total_required_investment)**(1/year)-1)
17          #print('The Year is:',round(year,2))
18          #print('The ROR for',year,'years is:',round(roi_year,2))
19          return roi,roi_year
20      return render_template('/admin/guage.html')
21
22  def calculateROI(invest,tot):
23      invest_gained = invest
24      total_required_investment = tot
25      roi = ((abs(invest_gained - total_required_investment) /
            total_required_investment) * 100)
26      #print('The ROI in % is :',roi)
27      #IRR Calculation
28      d0 = date(2018, 4, 15)
29      d1 = date(2020, 4, 15)
30      delta = d1 - d0
31      year = math.floor(delta.days / 365)
32      roi_year = ((invest_gained - total_required_investment /
            total_required_investment)**(1/year)-1)
33      #print('The Year is:',round(year,2))
34      #print('The ROR for',year,'years is:',round(roi_year,2))
35      return roi,roi_year
```

# Chapter 7

# System Testing

First the system will check the scraping function if that is implemented successfully so it will go the fetch function and take the database based on the structure that we have mentioned in the scrap function for calculation. It will fetch the data from database and run the modules in background for output.

## 7.1 Test Cases and Test Results

| Test ID | Test Case Title | Test Condition | System Behavior | Expected Result |
|---|---|---|---|---|
| T01 | Testing library | It is working | loaded websites | Successful |
| T02 | Scraping Datasets | Data Scarp | Load daatset | Successful |
| T03 | Fetching data from user and store in database | Data fetch and store in database | Stored in database | Successful |
| T04 | Fetching data from database and calculating | It should be calculation | Show results | Successful |

## 7.2 Sample of a Test Case

**Title:** Login Page – Authenticate Successfully from database.
**Description:** A registered user should be able to successfully login at our system.

*Precondition:* the user must already be registered with an email address and password.

*Assumption:* a supported browser is being used.

**Test Steps:**

1. Navigate to login page.
2. In the 'email' field, enter the email of the registered user.
3. Click the 'Next' button.
4. Enter the password of the registered user
5. Click 'Sign In'

**Expected Result:** A page displaying the gmail user's inbox should load, showing any new message at the top of the page.

**Actual Result:**

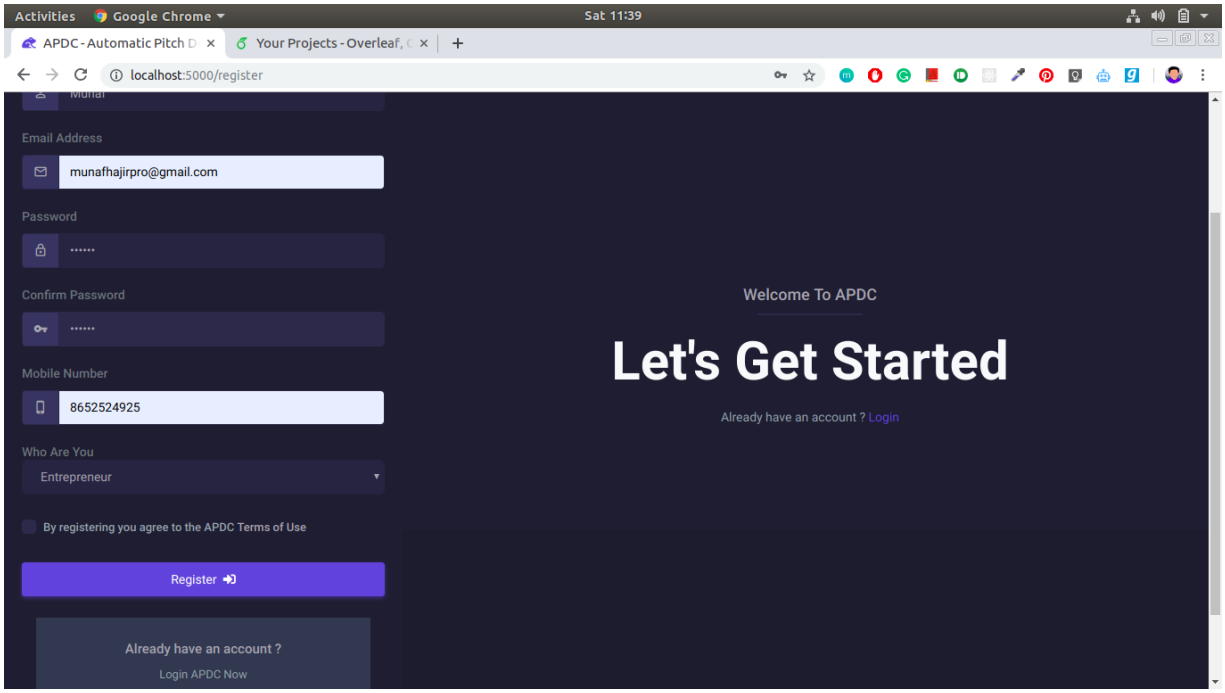


**Figure 7.1:** Login

### 7.2.1 Software Quality Attributes

1. AVAILABILITY: The system should not be down, whenever the user use the system the specific data should be available to the user.
2. CORRECTNESS: As per the user search the the correct should be shown to the user like at time for searching the the similar type of startup the system should show all the similar startup.
3. MAINTAINABILITY: The administration of the system will maintain the system with effective updates though on air update if needed. INSENSIBILITY: The system is capable to be modified by changing some modules or by adding some features to the existing system.

# Chapter 8

# Screenshots of Project

## 8.1 Home Page

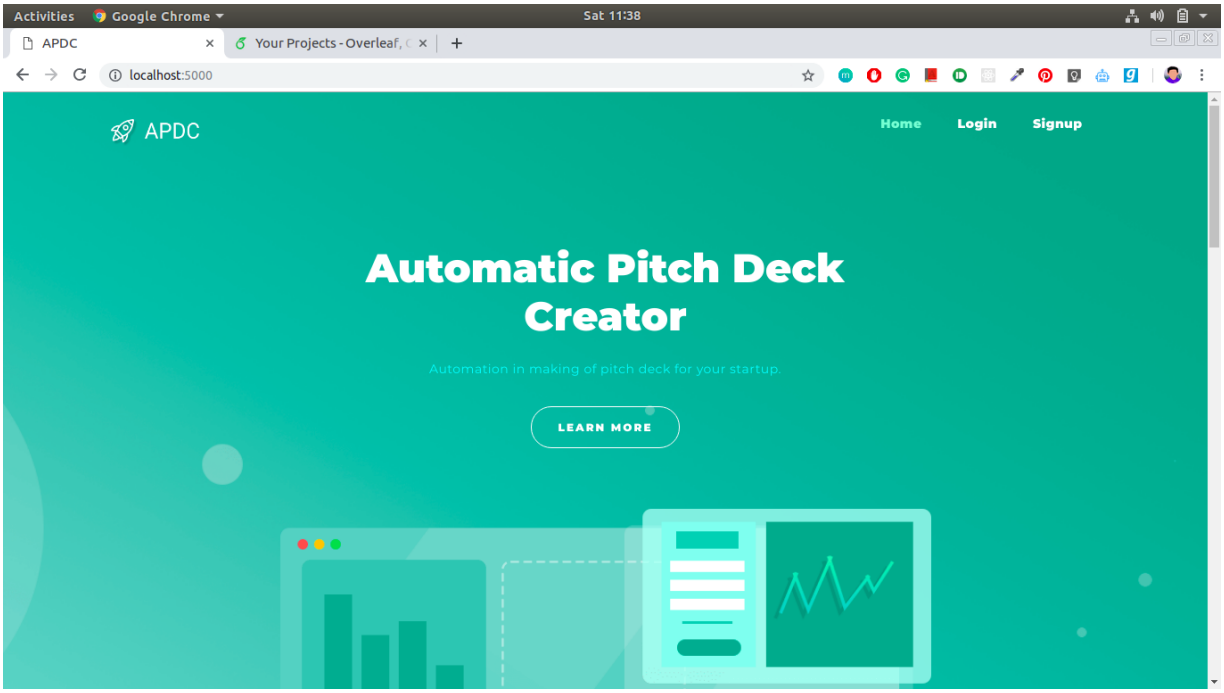


**Figure 8.1:** Home Page

## 8.2 Registration

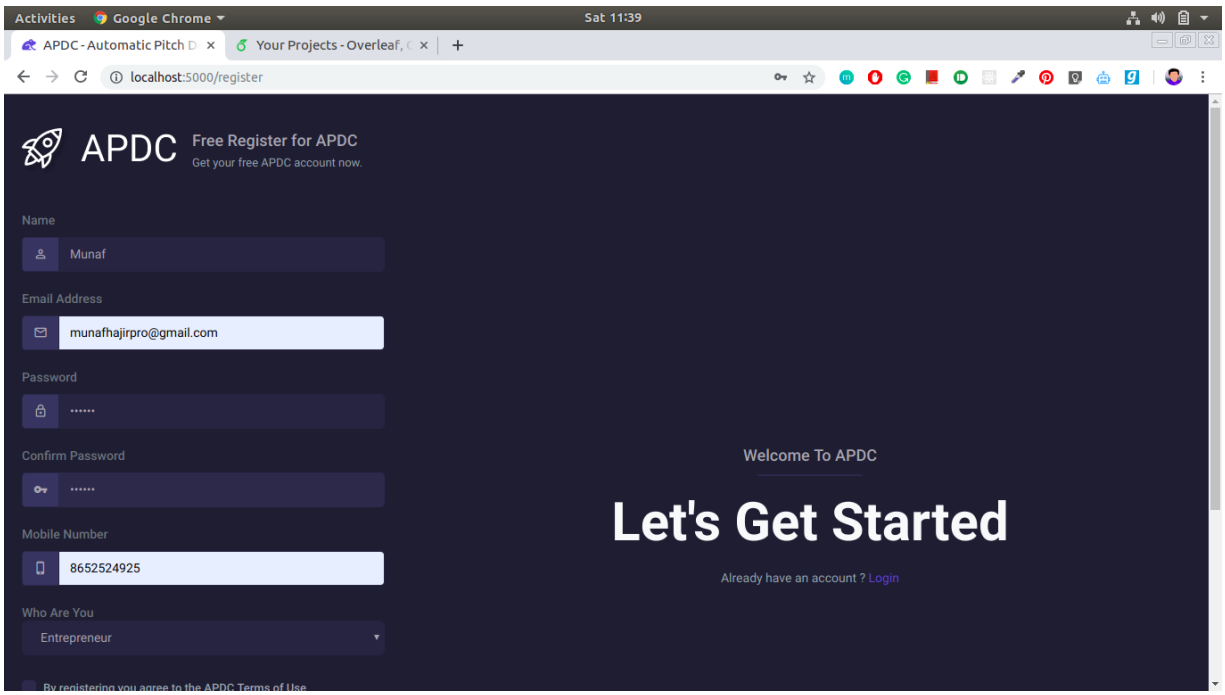


**Figure 8.2:** Registration

## 8.3 Startup Details

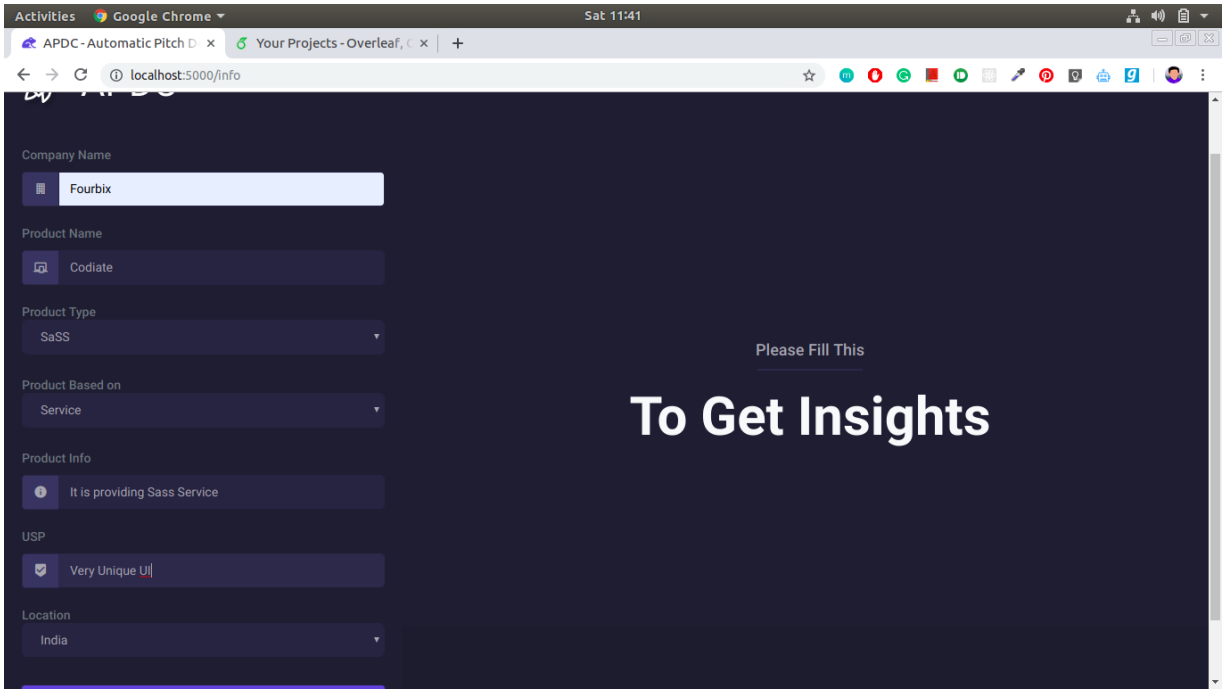


**Figure 8.3:** Startup Details

## 8.4 CLV:CAC Ratio

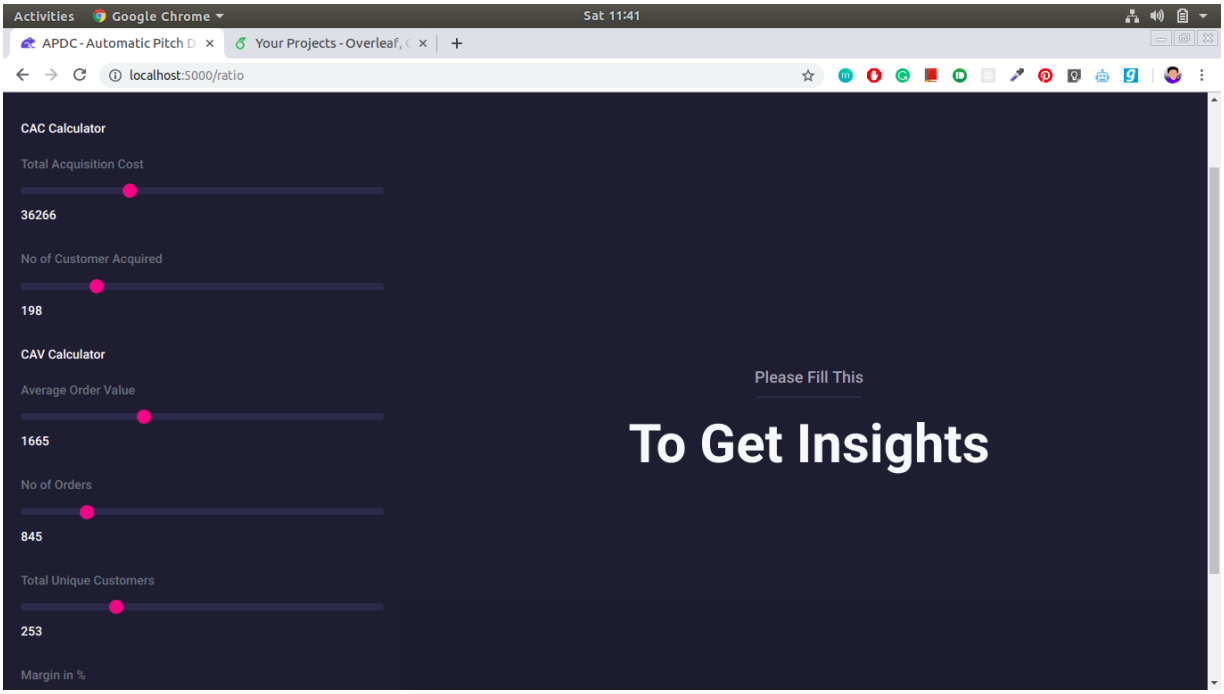


**Figure 8.4:** CLV:CAC Ratio

## 8.5 Investment Details

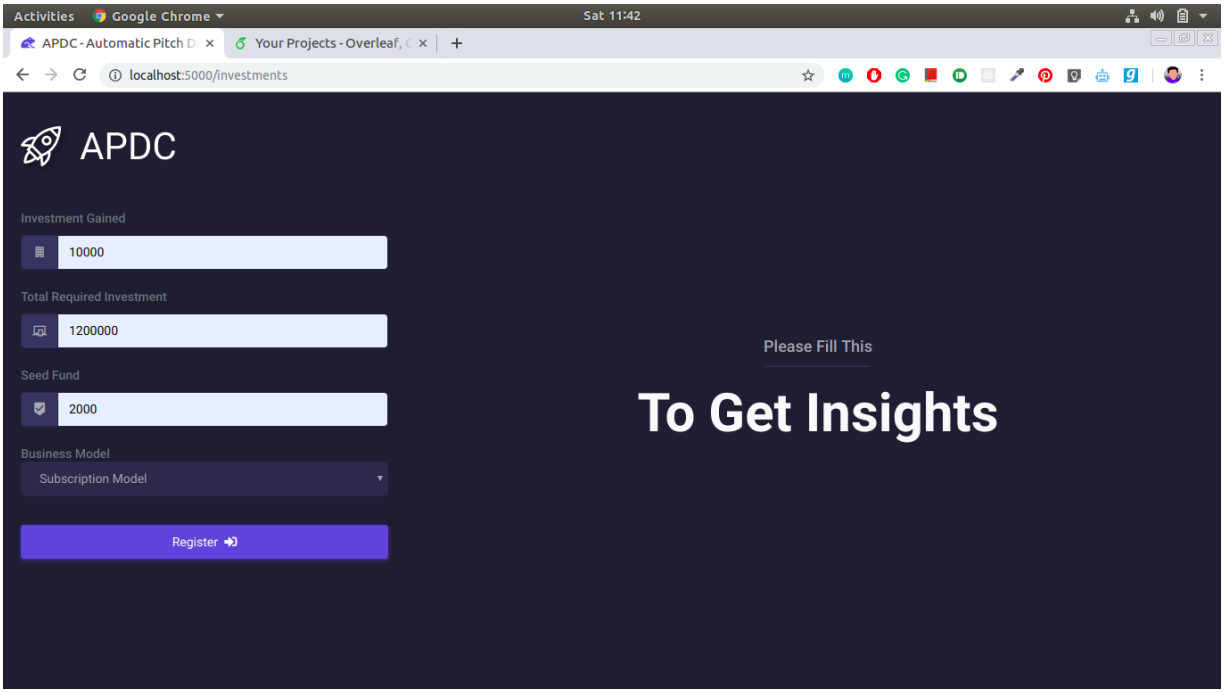


**Figure 8.5:** Investment Details

## 8.6 Team Profile

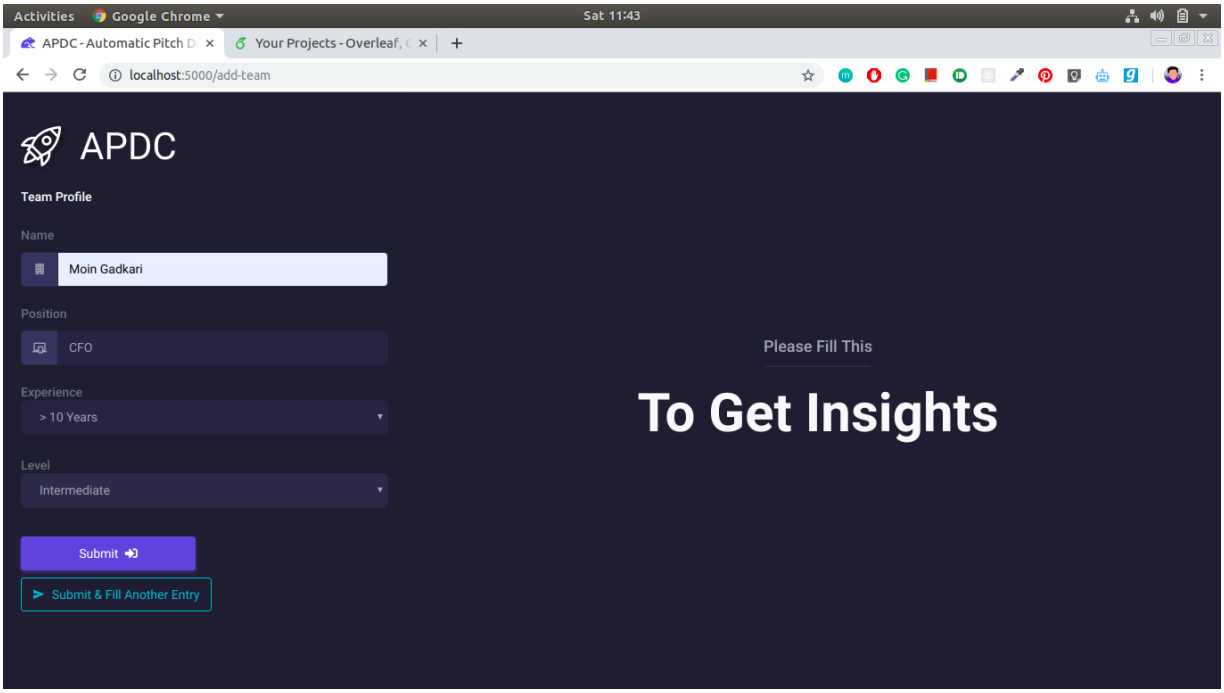


**Figure 8.6:** Team Profile

# Chapter 9

# Conclusion and Future Scope

## 9.1 Conclusion

We were able to create a platform that would ease up the process of pitching startup ideas to the investor or banks which provide mobilize funds to the entrepreneur.We can conclude that with the help of platform created by us the investor and entrepreneur would get a idea of what are the pros and cons for the startup idea.Who are the competitor, what will be the risk factor etc. Using our platform the process of pitch generation would get standardize format which will ease the decision making for an investor as well as entrepreneur.

## 9.2 Future Scope

As a part of future work we can provide various feature to the user including the accuracy in obtained in the standardize report. We can also add following feature to increase the ease of using system:

- As more data would be available the results generated will be more accurate.
- The server would be scaled if the product is a huge success.

# References

[1] Clay Spinuzzi, Scott Nelson, Keela S.Thomson, Francesca Lorenzini, Rosemary A. , French, Gregory Pogue, Sidney D. Burback and Joel Momberger, ”Remaking the Pitch: Reuse Strategies in Entrepreneurs’ Pitch Decks,” IEEE TRANSACTIONS ON PROFESSIONAL COMMUNICATION, VOL. 58, NO. 1, MARCH 2015

[2] Carmine Giardino, Nicolo Paternoster, Michael Unterkalmsteiner, Tony Gorschek and Pekka Abrahamsson, ”Software Development in Startup Companies:The Greenfield Startup Model,” IEEE TRANSACTIONS ON SOFTWARE ENGINEERING, VOL. 42, NO. 6, JUNE 2016

[3] Girish Chandrashekar, Ferat Sahin, ”A survey on feature selection methods,” Electrical and Microelectronic Engineering, Rochester Institute of Technology, Rochester, NY 14623, USA.

[4] R Muhamedyev, K. Yakunin, S. Iskakov, S. Sainova, A.Abdilmanova, ”Comparative analysis of classification algorithms,”Institute of Information and Computational Technologies, Ministry of Education and Science of the Republic of Kazakhstan, 125 Pushkina st.

[5] Chandni Saini and Vinay Arora, ”Information Retrieval in Web Crawling: A Survey,” 2016 Intl. Conference on Advances in Computing, Communications and Informatics (ICACCI), Sept. 21-24, 2016, Jaipur, India.