

**A**  
**PROJECT REPORT ON**  
**INDUSTRIAL TRANSPORT**  
**AUTOMATION**

*Submitted by*

**HARSHIL. A. PATEL**

**(166710316027)**

*In fulfillment for the award of the degree of*

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*in*

**Information Technology Engineering**



**SWAMINARAYAN COLLEGE OF ENGG. & TECH.,**  
**Gujarat Technological University, Ahmedabad**

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**SWAMINARAYAN COLLEGE OF ENGG. & TECH.(DIPLOMA)****CERTIFICATE**

This is certified that Mr. **Harshil.A. Patel** From  
**SWAMINARAYAN COLLEGE OF ENGG. & TECH. (DIPLOMA)** college  
having Enrollment no.: **166710316027** has completed report on  
the Semester V project I (3351605) report having title  
industrial transport automation in the group consisting of 1  
person.

**INTERNAL GUIDE****(K.S.SHAH)****EXAMINER****H.O. D****(H.N.PATEL)**

## **ACKNOWLEDGEMENT**

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An acknowledgment is a place to express my gratitude towards all those who have helped us directly or indirectly.

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With sincere Regards from

**Harshil.A. Patel**

**(176710316022)**

# INDEX

NO.	CONTENTS	PAGE
1	TITLE PAGE	
2	CERTIFICATE	
3	PROJECT TITLE	
4	ACKNOWLEDGEMENT	i
5	INDEX	ii
6	LIST OF FIGURES	iv
7	LIST OF TABLES	v
8	ABBREVIATION	vi
9	PREFACE	vii
10	PROJECT PROFILE	viii
1.	INTRODUCTION	1
	1.1 Project summary	
	1.2 Purpose	
	1.3 Scope	
2.	LITERATURE SURVEY	3
3.	SYSTEM REQUIREMENT SPECIFICATION	5
	3.1 User Characteristic	
	3.2 Software Requirement	
	3.3 Hardware Requirement	
	3.4 Project Development Approach	
	3.5 Scheduling Representation	
4.	ANALYSIS AND DESIGN	15
	4.1 Feasibility Study	
	4.1.1 Technical Feasibility	

	4.1.2 Economic Feasibility	
	4.1.3 Optional Feasibility	
	4.2 Function and System	
	4.2.1 Use Case Diagram	
	4.3 Data Modeling	
	4.3.1 Class Modeling	
	4.3.2 E-R Diagram	
	4.3.3 Activity Diagram	
	4.3.4 Sequence Diagram	
	4.4 Function and Behavioral Modeling	
	4.4.1 Data Flow Diagram	
	4.4.2 Flow Chart	
5.	DATA STRUCTURE	36
	5.1 Data Base Schema Design	
6	CONCLUSION	40
	Future Work	
7	BIBLIOGRAPHY	41

## **1 LIST OF FIGURES**

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<b>SR.NO.</b>	<b>FIGURE NAME</b>	<b>CONTENTS</b>	<b>PAGE NO</b>
1	Figure 4.2.1	Use Case Diagram	23
2	Figure 4.3.1	Class Diagram	24
3	Figure 4.3.2	E-R Diagram	25
4	Figure 4.3.3	Activity Diagram	26
5	Figure 4.3.4	Sequence Diagram	28
6	Figure 4.4.1	Dataflow Diagram (level 0)	31
7	Figure 4.4.2	Dataflow Diagram (level 1)	32
8	Figure 4.4.3	Dataflow diagram (level 2)	33
9	Figure 4.4.4	Dataflow diagram (level 3)	34
10	Figure 4.4.5	Flow Chart	35

**LIST OF TABLES**

<b>SR.NO</b>	<b>TABLE NAME</b>	<b>CONTENT</b>	<b>PAGE NO</b>
1	Table 3.2	Software Requirement	11
2	Table 3.3	Hardware requirement	11
3	Table 3.5	Schedule Representation	14
4	Table 4.4.1	(A) Basic Agile model	15
		(B) Water fall model	19
5	Table 5.1.1	Login _table	36
6	Table 5.1.2	Agency _table	37
7	Table 5.1.3	User _table	38
8	Table 5.1.4	Area _table	38
9	Table 5.1.5	Transport _table	39

## ABBRIVATION

GUI	Graphical User Interface
IDE	Integrated Development Environment
EE	Enter Prize Edition
RDBMS	Relational Database Management System
SDLC	Software Development Life Cycle
PM	Project Management
BRS	Business Requirement Specification
SRS	System Requirements Specification
COCOMO	Constructive Cost Model
SLOC	Source Line of Code
KLOC	Kilo Line of Code




## **PREFACE**

Web portal for an industrial transport service to automate and easily provide the transport for any industrial transport to our clients.

It satisfies time to time delivery easy request an appointment and on-time approach.

## PROJECT PROFILE

Project Title:	Industrial transport automation
Objective:	Industrial transport automation aspires to make hiring a service professional as easy and straightforward as eCommerce companies have made buying products.
Operating System:	Windows 10
Database System:	MySQL
Front End:	PyCharm
Back end:	Python
Project Duration:	
Project Submitted To:	Swaminarayan College of Engineering & Technology Diploma, Saij, Kalol.
Company Profile:	

# **CHAPTER:1**

## **INRODUCTION**

### **1.1 Project Summary:**

Application (Industrial transport management) now day transport Management are commercially managed but now, digital day everything happens online. So, such a way for industrial people transport problem happen. Application can help to find a nearest transport their area and also help to them book online from the application. It will save time and find a perfect transport as per the needs. Transport can also update their transport details and they will earn more money with this concept. Transport can also take raw-material and deliver the customer location.

Overview Introduction Transportation and Industrial Engineering The Parameters and Functions Associated with Transportation The Role of the Industrial Engineer in Transportation Planning and Transportation Operations Transportation and the Supply Chain Transporting Goods Pickup and Delivery Large-Scale Transportation Network Planning Driver Scheduling Quality in Transportation Technology References This Platform help customer and transporter to complete the task as per the requirements on tap. It consumes time between transport and user to deliver material easily and faster to real location.

### **1.2 Purpose:**

- Main purpose of the Application is user can find Transport from the Application.
- Transport management system project is developed to automate transport operation like payment, booking order, tracking vehicle, delivery report, show deliver time and distance.
- The admin can view the Transport-Booking details and they can accept or reject Booking. Admin can change in booking and inform automatically to user.
- The main review of this application is that multi-field transport can provide this application and then many are provided to the user after any area of transport.
- This Application Main Purpose are the minimize delivery Time and deliver the material at user end in time being.

### 1.3 SCOPE:

- The platform helps customers hire trusted professionals for transportation service like transportation of Electronic, Chemical, Corrugated box, and Raw materials.
- “industrial transport” is an app-based industry order delivery for hiring trusted another company and local services. The Company's vision is to use technology and smart processes to structure the highly unorganized services market in India and emerging markets.
- Using “transport agency” customer can book their services at any time & any place. Customer can see various service categories. Customer can see transportss details. Customer can see ratings & feedback.

## **CHAPTER:2**

### **LITERATURE REVIEW**

Today's world everyone has lack of time and more people like to book online Transport it is like by customer because online ordering display the offered row material and price with simplified visibility for the navigation for the booking.

Until the Industrial Revolution, transport remained slow and costly, and production and consumption gravitated as close to each other as feasible.

The Industrial Revolution in the 19th century saw a number of inventions fundamentally change transport. With telegraphy, communication became instant and independent of the transport of physical objects. The invention of the steam engine, closely followed by its application in rail transport, made land transport independent of human or animal muscles. Both speed and capacity increased, allowing specialization through manufacturing being located independently of natural resources. The 19th century also saw the development of the steam ship, which sped up global transport.

- With the development of the combustion engine and the automobile around 1900, road transport became more competitive again, and mechanical private transport originated
- There was no application to find online commercial transportation. we are making this application to find easily industrial transport and transfer online material faster.
- I personally do not like waiting for time when transport is not available and so company order that delivery has been delay.
- In this modern time, "Time is Money" for every one and competition in every industry, so industries that can deliver material fast and on time can stay in the market and this application is very useful for faster & easy transportation.

## **CHAPTER:3 (PROJECT MANAGEMENT)**

### **System Requirement Specification**

#### **3.1 USER CHARACTERISTIC (MODULE DETAIL): -**

##### **ADMIN LOGIN**

- Admin will be able to log into the system using given email and password.
- Admin can manage the whole admin panel and other process of the application.
- Admin can also be able to change password and reset password.

##### **Admin**

- Manage user: -  
Admin can manage the user who has registered into app.
- Manage categories: -  
Admin can manage the category like transport service.
- Manage localities: -  
Admin can manage the locations.
- Manage transport agency: –  
Admin can manage the transport who has registered into app and also can verify his personal detail over a call. Admin can also verify the transport agency.
- Assign transport to the user: –  
Admin can also assign booking if customer not selecting any transport. \*

##### **USER**

- Registration to the app: -  
User can create his account using mobile no and password.

- Login the app: -  
User can login using mobile no and password.
- Search transport according to various categories: -  
User can search various transport on basis of category and area. User can view the transport profile and other detail.
- Book transport by users need: -  
User can select his transport and also can specify the Date and Time for Service booking.
- Feedback: -  
User can also give a feedback to the application.
- Complain: -  
User can view the frequently asked question.

## **TRANSPORT AGENCY**

- Login into app:  
Transport can create his account and admin will accept / reject account.
- Profile:  
transport can update his profile details.
- View booking details:  
transport can view booking details.
- Update status:
  - Once user has complete work, he can update the status.
  - Transport can view Users locations
  - Transport can view user location for services.

## **QUOTATION**

- Transport agency will provide the quotation to user and also view admin.

## **ORDER**

- User will give order to admin.

## 3.2 SOFTWARE REQUIREMENT

### **PYCHARM:**

Nowadays, many programmers are opting for Python to create applications with a clean, readable and concise codebase. Custom software application development can also be accelerated by taking advantage of several IDE (Integrated Development Environments) for Python.

PyCharm is a cross-platform integrated development environment (IDE), designed for Python programmers. It is meant to accommodate all the tooling that is required to enhance the productivity of a Python programmer. It includes code compilation, syntax highlighting, Project navigation, database tooling, and a programming text editor to leverage web development.

Just like Python, PyCharm is one of the most widely used IDE for programming language. Currently, influencing enterprises including Twitter, Symantec, and Pinterest are using Python. One of the advantages of using PyCharm is that it provides API to developers and enables them to write their own plugins to extend features.

PyCharm is compatible with Windows, Linux, and macOS along with their set of tools and characteristics. It enables Python programmers to save a lot of time while writing in a variety of applications efficiently.

PyCharm UI can be customized according to the preferences and needs of developers. Moreover, there are a variety of options by which an IDE can be extended from over 50 plugins. Undoubtedly, the program is designed to meet the requirements of complex projects as PyCharm Community Edition. It is an open-source version that is available since 22 October 2013 to the users worldwide.

some primary working features offered by PyCharm to the developer's:

- Python refactoring includes extract method, introduce constant, rename, introduce variable, pull-up, push down and others.
- Integrated python debugger.
- Python development for the Google app engine.
- Web framework support for Flask, Django and web2py.
- Coding assistance and analysis with syntax and error highlighting, linter integration, code completion and quick fixes.
- Code and project navigation that is specialized in file structure views, project views, quick jumping between classes, files, usages, and methods.



- Version control integration that creates a unified user interface for Perforce, Subversion, Mercurial, Git and CVS.
- Line by line integrated unit coverage code testing.

## 1. Code Editing

PyCharm's intelligent code editor enables programmers to write high-quality code for Python. Programmers can read codes via colour schemes, appropriate coding style, insert indents and can avail context-aware code completion suggestions. Also, it enables programmers to use editor for code block expansion to express a logical block. It gets them to avail code snippets, identifies errors, format the code base, detects duplicate code, checks misspellings, and auto-generate code. Hence, it is much easier for developers to analyse and identify code errors while writing.

## 2. Code Navigation

PyCharm provides smart code navigation that helps programmers to improve and edit code without additional effort while saving time. It is much assessable for programmers to reach for a class and file symbols and go to the declarations that are evoked from references, thanks to the IDE. This enables the user to find an element in source code, UI, snippet code or even in user action quickly. With this, they can locate set bookmarks and determine the usage of symbols. Also, developers can be benefited from the code navigation feature that scrutinizes the entire code in lens mode at the same time.

## 3. Refactoring

Developers can quickly implement both local and international changes instantly and smartly. PyCharm provides developers with the decisive advantage of refactoring options while **working with python framework** and building plain python codes. Refactoring of classes, files, methods, functions, properties, parameters, and both local and global variables can be availed by renaming or changing their locations. Moreover, code quality can be improved extracting variables, constants, fields, and parameters. Thanks to PyCharm, programmers can now break more extended methods and classes via the extract method.

## 4. Support for Popular Web Technologies

Programmers can write a number of web applications in Python, due to IDE PyCharm. As mentioned above, it supports some widely used technologies like; JavaScript, CSS, HTML, Coffee Script, and TypeScript. PyCharm provides live editing preview option to web developers that let them view a single web page simultaneously in both editor and browser. Moreover, IDE enables programmers to see changes made to the code on a web browser instantly at the same time. The story doesn't end here, PyCharm offers developers with a JavaScript, Coffee Script and TypeScript debugger by simplifying isomorphic web application development supporting NodeJS and AngularJS.

## 5. Database Tools

Just like supporting a number of python libraries and frameworks, PyCharm helps web developers to work with databases of their choice including: SQL Server, PostgreSQL, MySQL and Oracle. It gives a fairground to developers for using IDE to alter table data, browse data, run queries, alter/analyze schemas and edit SQL code. It further supports the SQLAlchemy library by injecting SQL code to writing for many programming languages. Fortunately, the professional edition of PyCharm has made it easier to handle large data volumes efficiently via data grids for web developers.

## 6. Support for Python Scientific Libraries

PyCharm helps programmers to work in Python by supporting and processing big data. It efficiently collaborates with a wide range of scientific libraries like Matplotlib, Anaconda, and NumPy. These scientific libraries of Python can be defined by availing deep code insight, array viewers and interactive graphs provided to work efficiently. REPL Python console can be run, provided by PyCharm and developers can further avail significant features like code inspection and on-the-fly syntax check. Also, Web developers can integrate IDE with I Python Notebook seamlessly at the same time to build innovative solutions without additional efforts and wasting much time.

## 7. Built-in Terminal

The built-in local terminals of PyCharm for Linux, macOS, and windows enable developers to do coding and testing without breaking continuity and leaving the IDE. Developers can also use IDE to configure and customize Python environments to run Python files to precise project specifications and requirements accordingly. The console features automatic braces matching, code completion, and dynamic syntax change. Programmers can directly run Django console or interactive Python at the same time in the IDE. PyCharm offers an option to developers for integration with both remote and remote interpreters.

## 8. Support for Popular Python Web Frameworks

PyCharm offers a first-class support system to the complicated web framework of Python. This feature enables developers to use the IDE for availing code completion suggestions for parameters, filters, tags, and template variables. They can gather and process every kind of complicated data about filters and stickers by quickly referring to the documentation. Python supports developers to debug templates, code formatting, verifying and managing for Django consoles. At the same time, widely used web frameworks of Python, including Web2Py and Pyramid, are compatible with Python providing navigation options and code compilation that are specific to the pyramid.

## 9. Visual Debugger

Visual debugging provided by PyCharm for python programmers offers to debug of JavaScript and Django code. Web developers can use inline debugging to see live debugging data on the editor database, which is directly connected to the server. Likewise, PyCharm creates

customizable and reusable configurations for both debugging execution and testing script. They can further have choices to integrate visual debugger to facilitate remote debugging by remote interpreters.

## **10. Support for Major Version Control Systems**

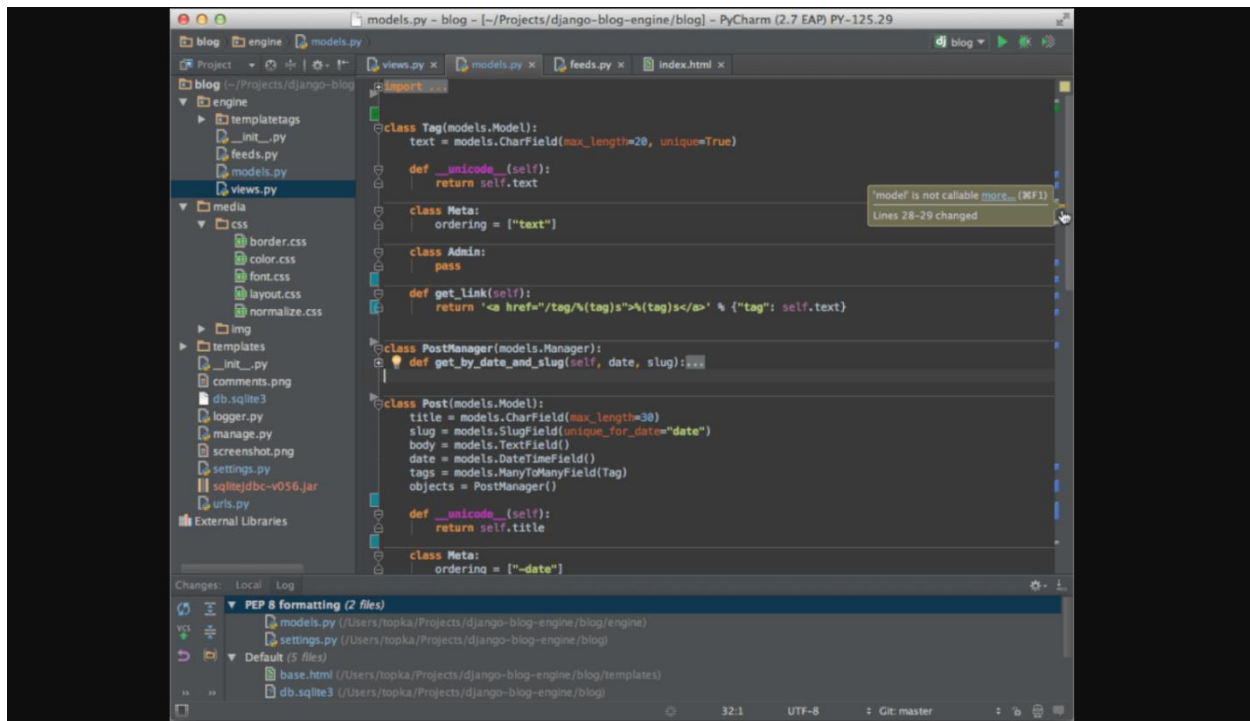
With the help of PyCharm, web developers and programmers can now work with commonly used reliable version control systems including Mercurial, Perforce, Git, and SVN. They can perform complicated tasks of editing, adding and removing files automatically. PyCharm provides developers with the option to avail of a wide range of features to manage Python and IDE with the additional advantage of selecting a version control system of their own choice. They can group individual alterations into variable change lists along with restoring changes and monitoring them into the code repository of multiple users. Developers can see the alterations made to coding prior to integrating them into a local copy.

## **11. Software Testing**

As mentioned above, PyCharm comes with a wide range of useful features when compared to other available IDEs in the market. It has been designed to make python application easy to test and simple to use. Undoubtedly, it allows programmers to perform unit testing via frameworks like Attest, Detests, and Nose for Python. You can run the testing on individual files or multiple test classes. Furthermore, to measure codes, you can integrate IDE with Coverage.py during testing applications. Testers can also use thread currency visualization while testing a multi-threaded application offered by IDE to control application aspects efficiently. Lastly, users can deliver high-quality software that is functional and adaptable to implement behaviour-driven development (BDD), thanks to PyCharm.

## **12. Remote Development Capabilities**

With the integration of PyCharm to Python, web developers can connect with a variety of available IDE machines and software builds remotely and safely. It enables programmers to avail of the benefits of a built-in SSH console that is offered by an IDE. It makes sure developers can perform a number of development tasks by connecting to machines via SSH from a suitable location. Python applications can run, debug and profile applications in an environment that is remote with the replacement of a local interpreter with your remote interpreter. Programmers can now create reproducible development environments via compatible tools including Vagrant for PyCharm, and it can be distributed through a network of applications for development like Docker. Programmers have the option to integrate tracking systems that work seamlessly with Python.



## DATA BASE

### MYSQL: -

- MySQL is a fast, easy-to-use RDBMS being used for many small and big businesses. MySQL is developed, marketed and supported by MySQL AB, which is a Swedish company. MySQL is becoming so popular because of many good reasons.
- 
- MySQL is released under an open-source license. So, you have nothing to pay to use it.
- MySQL is a very powerful program in its own right. It handles a large subset of the functionality of the most expensive and powerful database packages.
- MySQL uses a standard form of the well-known SQL data language.
- MySQL works on many operating systems and with many languages including PHP, PERL, C, C++, JAVA, etc. DATABASE
- MySQL works very quickly and works well even with large data sets.
- MySQL is very friendly to PHP, the most appreciated language for web development.
- MySQL supports large databases, up to 50 million rows or more in a table. The default file size limit for a table is 4GB, but you can increase this (if your operating system can handle it) to a theoretical limit of 8 million terabytes (TB).
- MySQL is customizable. The open-source GPL license allows programmers to modify the MySQL software to fit their own specific environments.

## SOFTWARE REQUIREMENT

Language	Python 3
IDE	PyCharm
Platform	Windows
Database	MySQL
Documentation Tool	Word and Draw.io

## 3.3 HARDWARE REQUIREMENT

Hard Disk	1TB
RAM	8GB
Processor	Intel Core i5

## 3.4 PROJECT DEVELOPMENT APPROACH

- Software development life cycle (SDLC) is a series of phase that provide a common understanding of the software building process. Traditionally, the Systems Development Lifecycle (SDLC) and Project Management (PM) methodologies have followed a waterfall or gated approach. Depending upon the project and project organization, the methodologies may be adapted using waterfall, iterative, incremental, spiral or agile approaches. In our project we are using Spiral model for showing our project development approach.
- The spiral model is similar to the incremental model, with more emphasis placed on risk analysis. The spiral model has four phases: Planning, Risk Analysis, Engineering and Evaluation.
- A software project repeatedly passes through these phases in iterations (called Spirals in this model). The baseline spiral, starting in the planning phase, requirements are gathered and risk is assessed. Each subsequent spiral build on the baseline spiral. It's one of the software developments models like Waterfall, Agile, and V-Model.

### **Planning Phase: -**

Requirements are gathered during the planning phase. Requirements like BRS that is Business Requirement Specifications and SRS that is System Requirement specifications.

### **Risk Analysis: -**

In the risk analysis phase, a process is undertaken to identify risk and alternate solutions. A prototype is produced at the end of the risk analysis phase. If any risk is found during the risk analysis then alternate solutions are suggested and implemented.

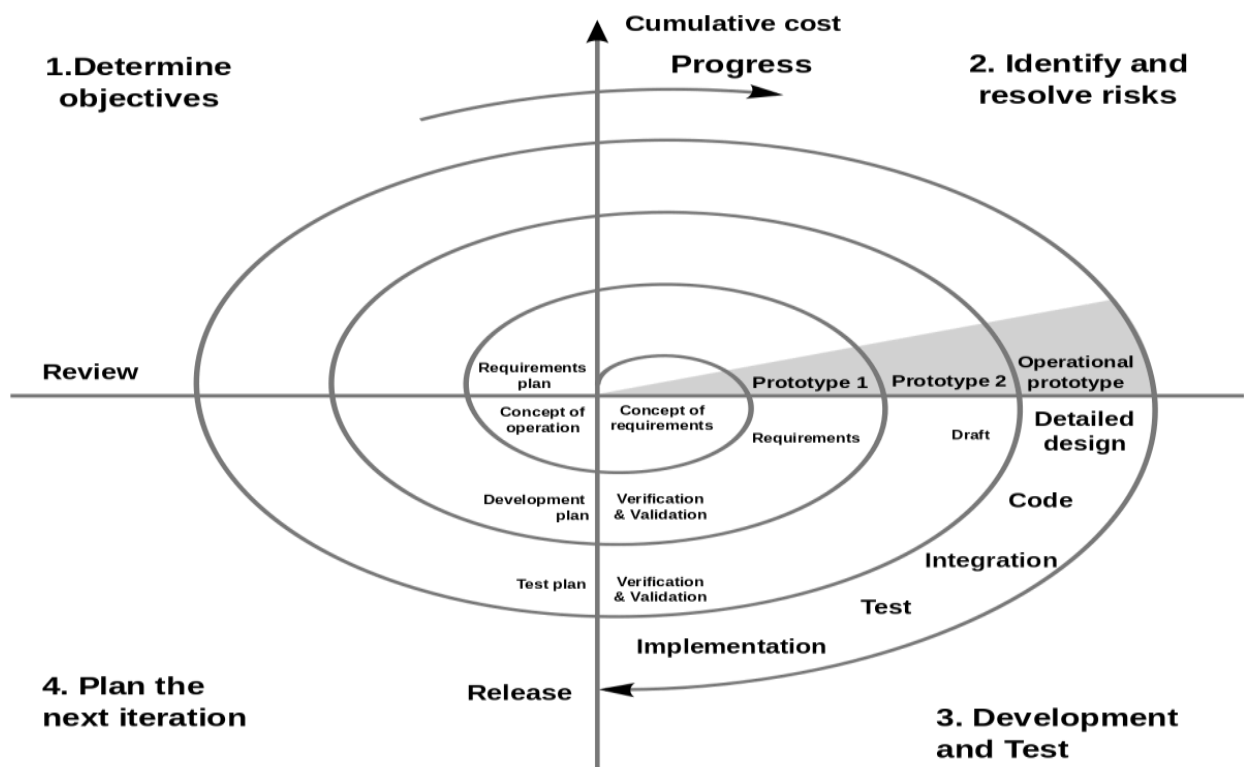
### **Engineering Phase: -**

In this phase software is developed, along with testing at the end of the phase. Hence in this phase the development and testing are done.

### **Evaluation phase: -**

This phase allows the customer to evaluate the output of the project to date before the project continues to the next spiral.

## **SPIRAL MODEL DIAGRAM**



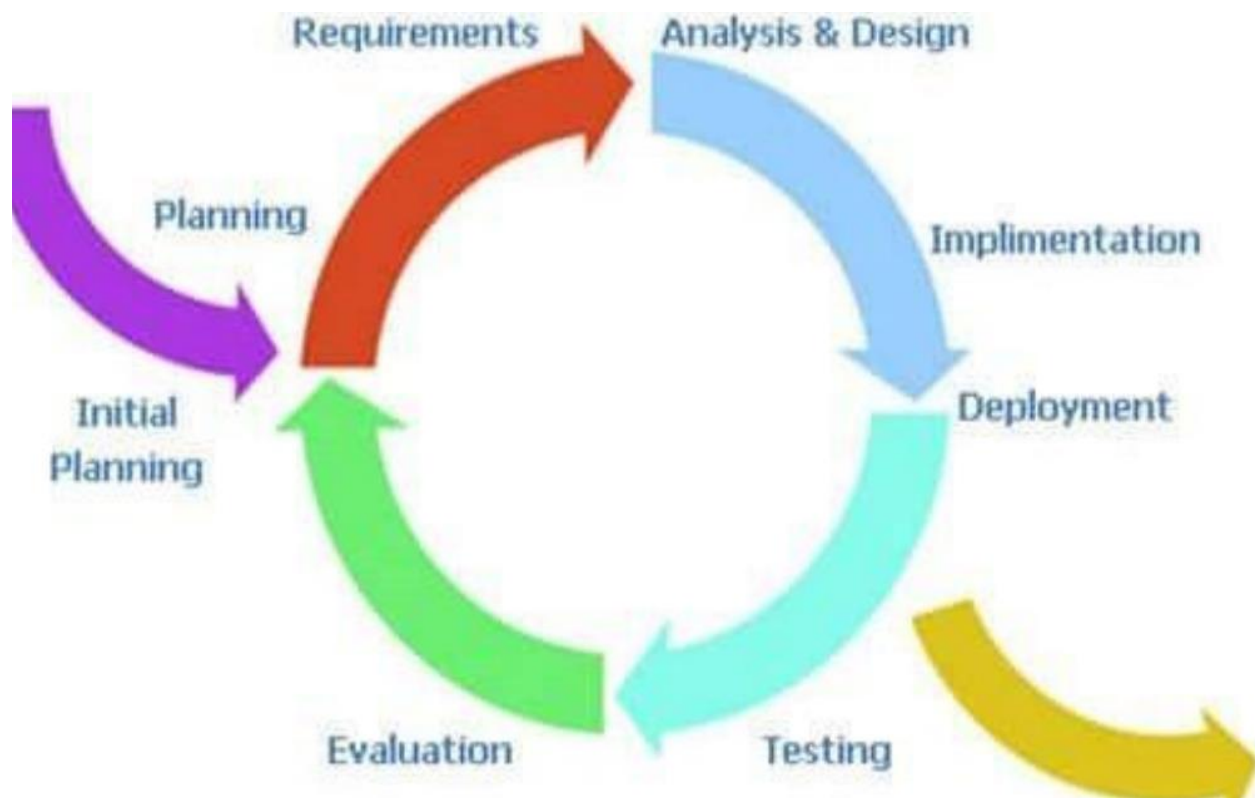
## ADVANTAGES OF SPIRAL MODEL

- High amount of risk analysis hence, avoidance of Risk is enhanced.
- Good for large and mission-critical projects.
- Strong approval and documentation control.
- Additional Functionality can be added at a later date.
- Software is produced early in the software life cycle.

## DISADVANTAGES OF SPIRAL MODEL

- Can be a costly model to use.
- Risk analysis requires highly specific expertise.
- Project 's success is highly dependent on the risk analysis phase.
- Doesn't work well for smaller projects.

## WHEN TO USE SPIRAL MODEL



### 3.6 SCHEDULE REPRESENTSTION

Week	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3
Month	June		July				August				September				October		
Activity																	
Deciding project title& platform																	
Requirement gathering																	
Deciding development approach																	
Data modelling																	
Design																	
Preparing report																	



## CHAPTER: 4 (ANALYSIS AND DESIGN)

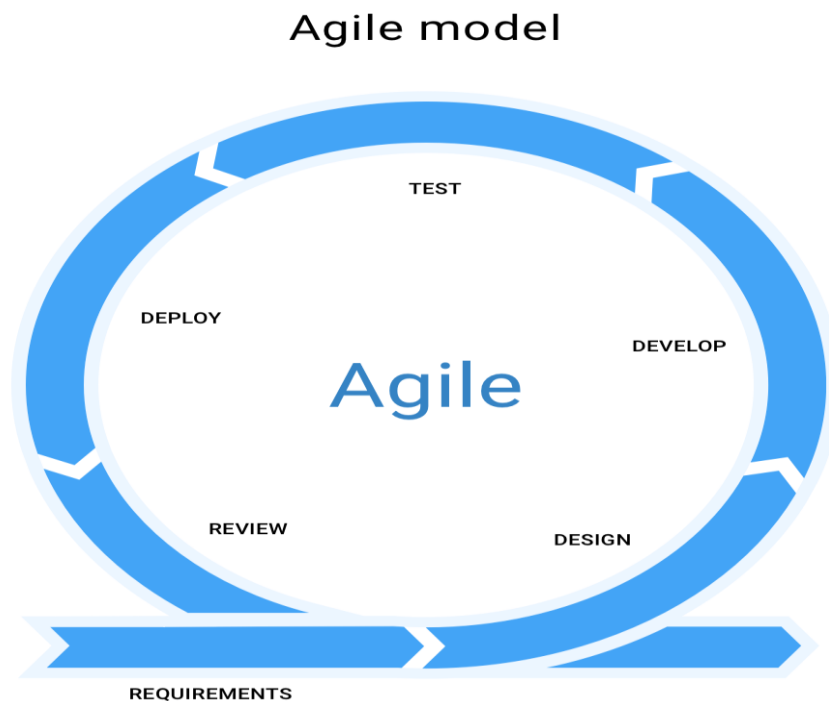
### 4.1 Feasibility Study

#### 4.1.1 Technical feasibility: -

##### Agile model: -

The meaning of Agile is swift or versatile. “**Agile process model**” refers to a software development approach based on iterative development. Agile methods break tasks into smaller iterations, or parts do not directly involve long term planning. The project scope and requirements are laid down at the beginning of the development process. Plans regarding the number of iterations, the duration and the scope of each iteration are clearly defined in advance.

Each iteration is considered as a short time "frame" in the Agile process model, which typically lasts from one to four weeks. The division of the entire project into smaller parts helps to minimize the project risk and to reduce the overall project delivery time requirements. Each iteration involves a team working through a full software development life cycle including planning, requirements analysis, design, coding, and testing before a working product is demonstrated to the client.



**Phases of Agile Model:**

1. Requirements gathering
2. Design the requirements
3. Construction/ iteration
4. Testing/ Quality assurance
5. Deployment
6. Feedback

**1. Requirements gathering:** In this phase, you must define the requirements. You should explain business opportunities and plan the time and effort needed to build the project. Based on this information, you can evaluate technical and economic feasibility.

**2. Design the requirements:** When you have identified the project, work with stakeholders to define requirements. You can use the user flow diagram or the high-level UML diagram to show the work of new features and show how it will apply to your existing system.

**3. Construction/ iteration:** When the team defines the requirements, the work begins. Designers and developers start working on their project, which aims to deploy a working product. The product will undergo various stages of improvement, so it includes simple, minimal functionality.

**4. Testing:** In this phase, the Quality Assurance team examines the product's performance and looks for the bug.

**5. Deployment:** In this phase, the team issues a product for the user's work environment.

**6. Feedback:** After releasing the product, the last step is feedback. In this, the team receives feedback about the product and works through the feedback.

**Agile Testing Methods:**

- Scrum
- E Xtreme Programming (XP)
- Crystal
- Dynamic Software Development Method (DSDM)
- Feature Driven Development (FDD)
- Lean Software Development

## Scrum

SCRUM is an agile development process focused primarily on ways to manage tasks in team-based development conditions.

There are three roles in it, and their responsibilities are:

- **Scrum Master:** The scrum can set up the master team, arrange the meeting and remove obstacles for the process
- **Product owner:** The product owner makes the product backlog, prioritizes the delay and is responsible for the distribution of functionality on each repetition.
- **Scrum Team:** The team manages its work and organizes the work to complete the sprint or cycle.

## E Xtreme Programming (XP)

This type of methodology is used when customers are constantly changing demands or requirements, or when they are not sure about the system's performance.

## Crystal:

There are three concepts of this method-

1. Chartering: Multi activities are involved in this phase such as making a development team, performing feasibility analysis, developing plans, etc.
2. Cyclic delivery: under this, two more cycles consist, these are:
  - Team updates the release plan.
  - Integrated product delivers to the users.
3. Wrap up: According to the user environment, this phase performs deployment, post-deployment.

## Dynamic Software Development Method (DSDM):

DSDM is a rapid application development strategy for software development and gives an agile project distribution structure. The essential features of DSDM are that users must be actively connected, and teams have been given the right to make decisions. The techniques used in DSDM are:

1. Time Boxing
2. Moscow Rules
3. Prototyping

**The DSDM project contains seven stages:**

1. Pre-project
2. Feasibility Study
3. Business Study
4. Functional Model Iteration
5. Design and build Iteration
6. Implementation
7. Post-project

**Feature Driven Development (FDD):**

This method focuses on "Designing and Building" features. In contrast to other smart methods, FDD describes the small steps of the work that should be obtained separately per function.

**Lean Software Development:**

Lean software development methodology follows the principle "just in time production." The lean method indicates the increasing speed of software development and reducing costs. Lean development can be summarized in seven phases.

1. Eliminating Waste
2. Amplifying learning
3. Defer commitment (deciding as late as possible)
4. Early delivery
5. Empowering the team
6. Building Integrity
7. Optimize the whole

**Use the Agile Model**

- When frequent changes are required.
- When a highly qualified and experienced team is available.
- When a customer is ready to have a meeting with a software team all the time.
- When project size is small.

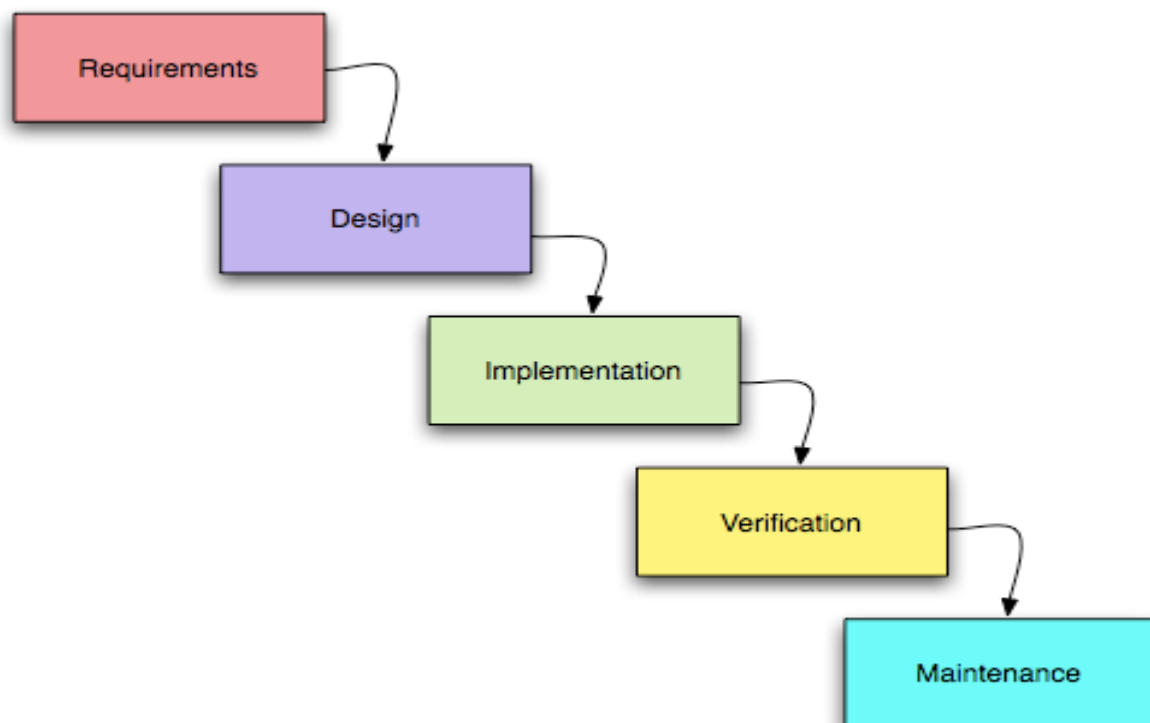
**Waterfall Model: -**

The Waterfall Model was the first Process Model to be introduced. It is also referred to as a linear-sequential life cycle model. It is very simple to understand and use. In a waterfall model, each phase must be completed before the next phase can begin and there is no overlapping in the phases.

The Waterfall model is the earliest SDLC approach that was used for software development.

The waterfall Model illustrates the software development process in a linear sequential flow. This means that any phase in the development process begins only if the previous phase is complete. In this waterfall model, the phases do not overlap.

Waterfall approach was first SDLC Model to be used widely in Software Engineering to ensure success of the project. In "The Waterfall" approach, the whole process of software development is divided into separate phases. In this Waterfall model, typically, the outcome of one phase acts as the input for the next phase sequentially.



The sequential phases in Waterfall model are –

- **Requirement Gathering and analysis** – All possible requirements of the system to be developed are captured in this phase and documented in a requirement specification document.
- **System Design** – The requirement specifications from first phase are studied in this phase and the system design is prepared. This system design helps in specifying hardware and system requirements and helps in defining the overall system architecture.
- **Implementation** – With inputs from the system design, the system is first developed in small programs called units, which are integrated in the next phase. Each unit is developed and tested for its functionality, which is referred to as Unit Testing.
- **Integration and Testing** – All the units developed in the implementation phase are integrated into a system after testing of each unit. Post integration the entire system is tested for any faults and failures.
- **Deployment of system** – Once the functional and non-functional testing is done; the product is deployed in the customer environment or released into the market.
- **Maintenance** – There are some issues which come up in the client environment. To fix those issues, patches are released. Also, to enhance the product some better versions are released. Maintenance is done to deliver these changes in the customer environment.

All these phases are cascaded to each other in which progress is seen as flowing steadily downwards (like a waterfall) through the phases. The next phase is started only after the defined set of goals are achieved for previous phase and it is signed off, so the name "Waterfall Model". In this model, phases do not overlap.

## Waterfall Model - Application

Every software developed is different and requires a suitable SDLC approach to be followed based on the internal and external factors. Some situations where the use of Waterfall model is most appropriate are –

- Requirements are very well documented, clear and fixed.
- Product definition is stable.
- Technology is understood and is not dynamic.
- There are no ambiguous requirements.
- Ample resources with required expertise are available to support the product.
- The project is short.

#### **4.1.2 Economical feasibility: -**

Economic feasibility analysis is the most commonly used method for determining the efficiency of a new project. It is also known as cost analysis. It helps in identifying profit against investment expected from a project. Cost and time are the most essential factors involved in this field of study.

Generally, it means whether a business or a project is feasible cost wise and logistically. Economists calculate economic feasibility by analysing the costs and revenues a business would incur by undertaking a certain project.

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These Include:

- Economic feasibility cash flow.
- Estimated total project cost.
- Estimated total earnings.
- Risk factors.
- Cost benefits.

#### **4.1.3 Optional Feasibility: -**

- Optional feasibility -Refers to the measure of solving problems with the help of a new proposed system. It helps in taking advantage of the opportunities and fulfils the requirements as identified during the development of the project. It takes care that the management and the users support the project.

- After analysing the technical, economic, and scheduling feasibility studies, next would come the operational analysis. In order to determine if the redesign of the workspace environment would work, an example of an operational feasibility study would follow this path based on six elements

- Process -Input and analysis from everyone the new redesign will affect along with a data matrix on ideas and suggestions from the original plans.

- Evaluation –Determinations from the process suggestions; will the redesign benefit everyone? Who is left behind? Who feels threatened?

- Implementation –Identify resources both inside and out that will work on the redesign. How will the redesign construction interfere with current work?

- Resistance – What areas and individuals will be most resistant? Develop a change resistance plan.
- Strategies – How will the organization deal with the changed or structures need to be reviewed or implemented in order for the redesign to be effective?
- Adapt & Review – How much time does the organization need to adapt to the new redesign? How will it be reviewed and monitored? What will happen if, through a monitoring process, additional changes must be made?

**Risk analysis: -**

Risk analysis is the review of the risks associated with a particular event or action. It is applied to projects, information technology, security issues and any action where risks may be analyzed on a quantitative and qualitative basis. Risk analysis is a component of risk management.

Risks are part of every project and business endeavor. As such, risk analysis should occur on a recurring basis and be updated to accommodate new potential threats. Strategic risk analysis minimizes future risk probability and damage.

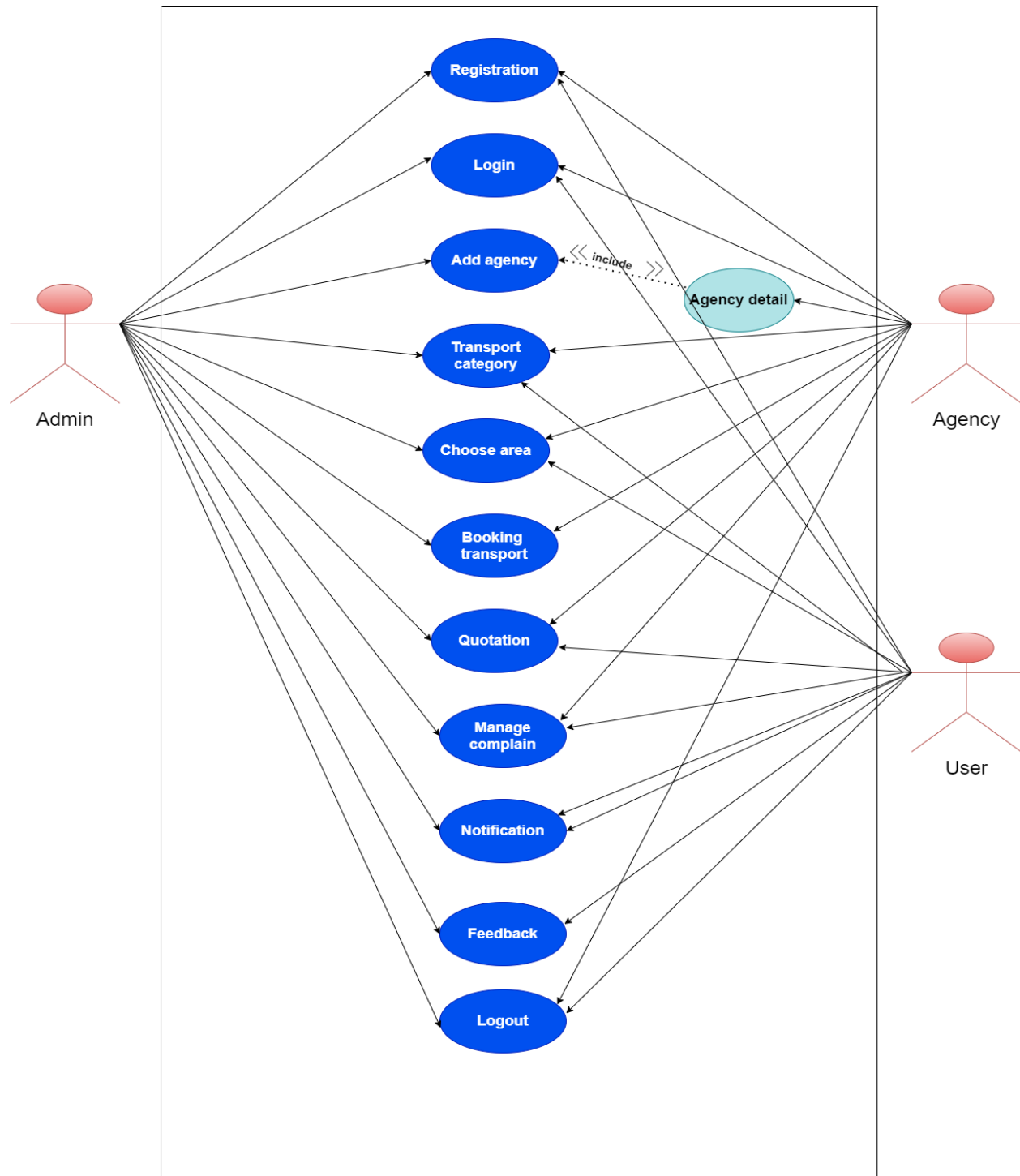
The risk management process involves a few key steps. First, potential threats are identified. For example, risks are associated with individuals using a computer either incorrectly or inappropriately, which creates security risks. Risks are also related to projects that are not completed in a timely manner, resulting in significant costs.

Next, quantitative and/or qualitative risk analysis is applied to study identified risks. Quantitative risk analysis measures expected risk probability to forecast estimated financial losses from potential risks. Qualitative risk analysis does not use numbers but reviews threats and determines and establishes risk mitigation methods and solutions. A contingency plan may be used during risk analysis. If a risk is presented, contingency plans help minimize damage



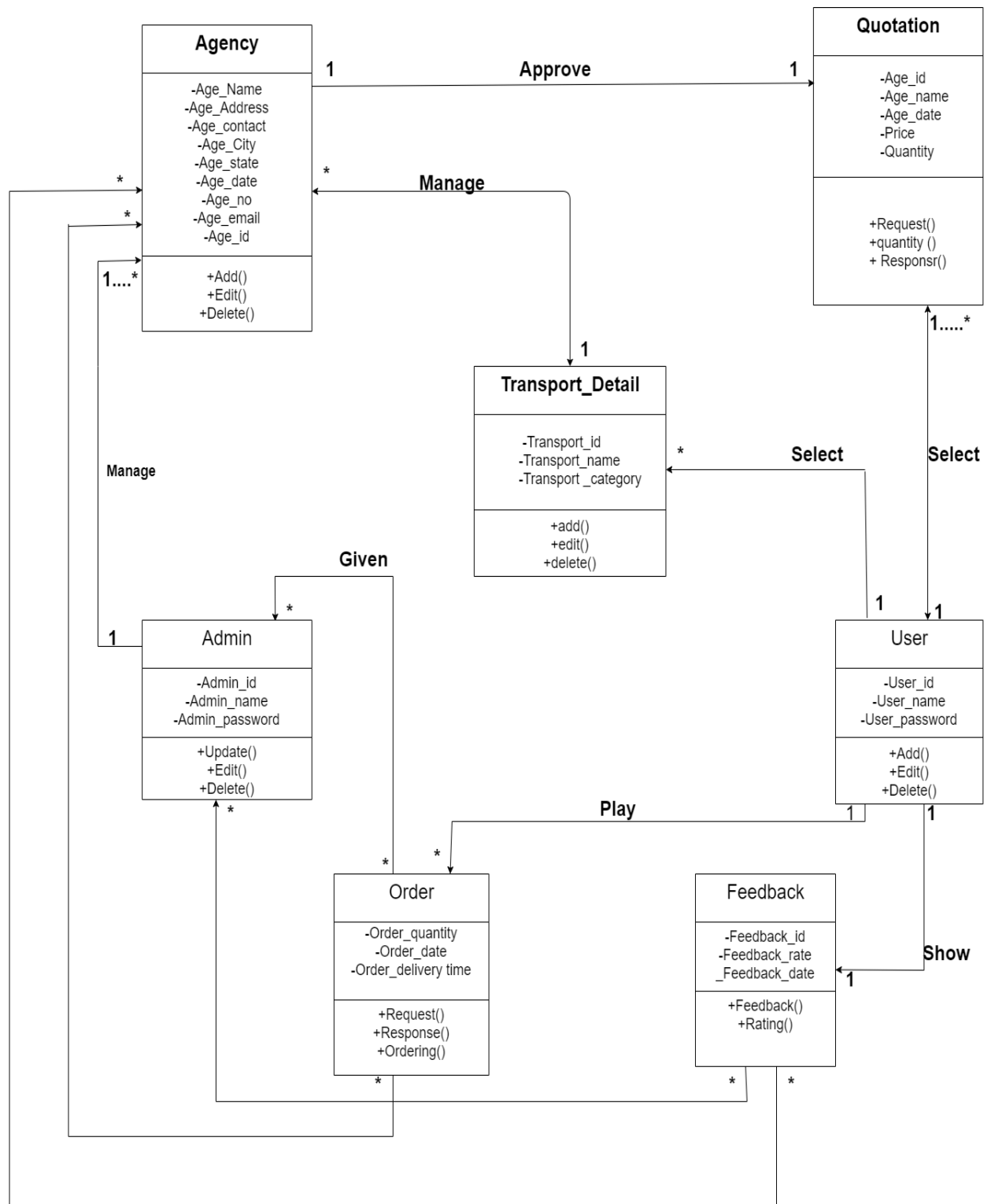
## 4.2 Function of System: -

### 4.2.1 Use Case Diagram: -

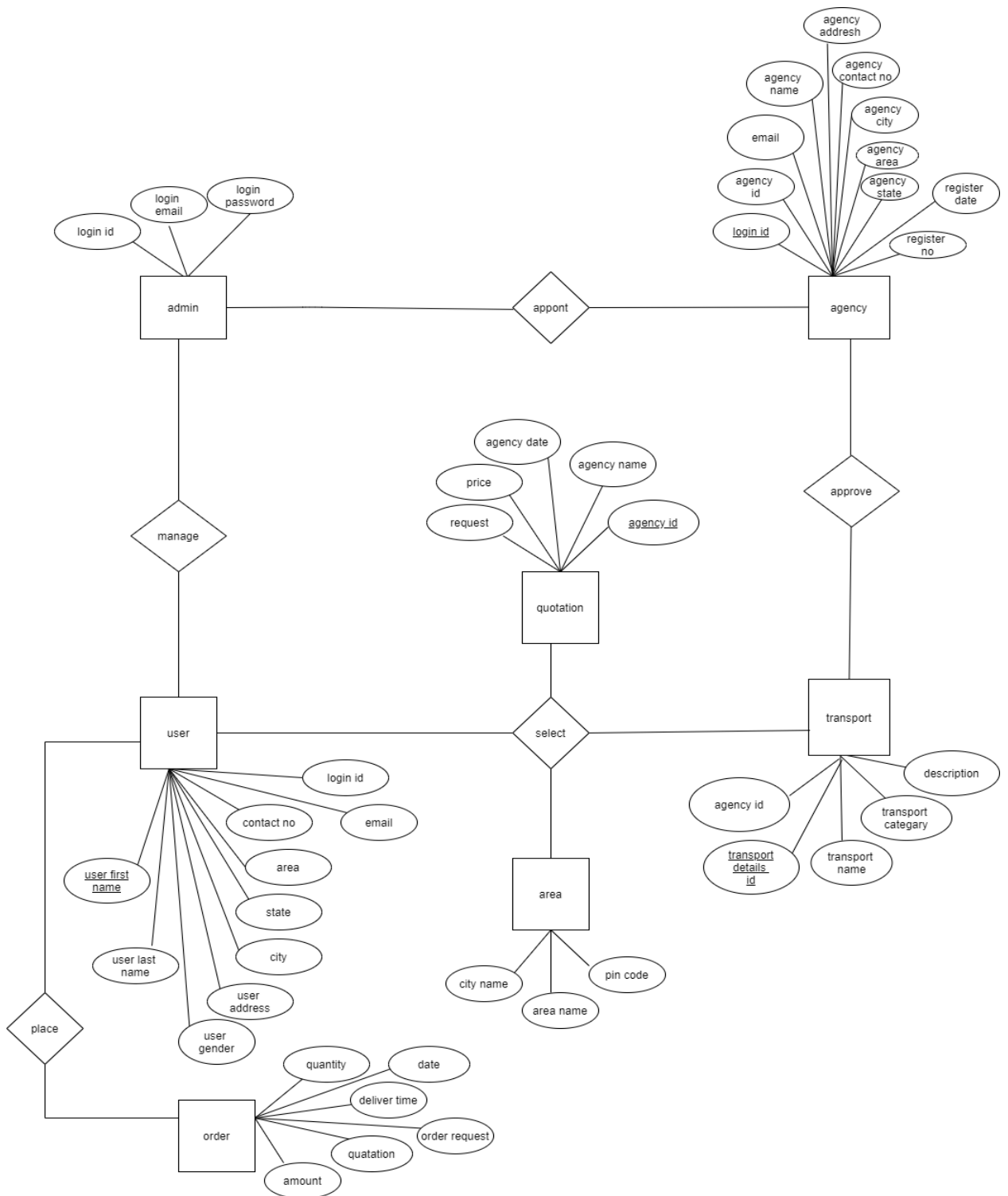


## 4.3 Data modeling:

### 4.3.1 Class diagram: -

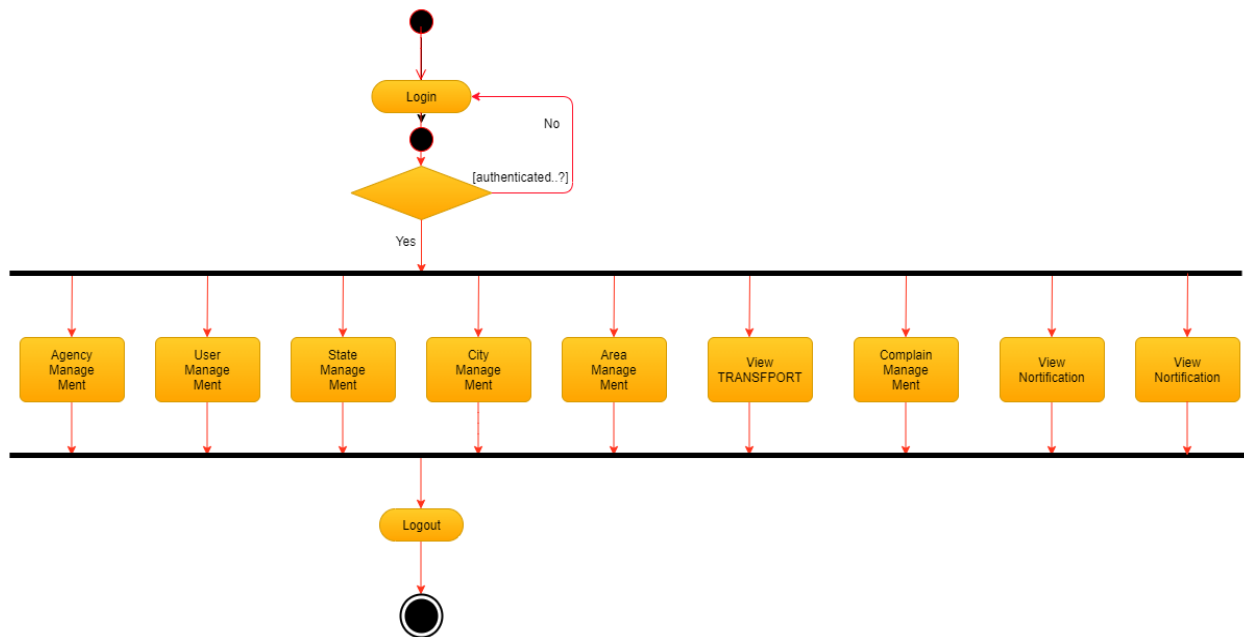


### 4.3.2 ER diagram: -

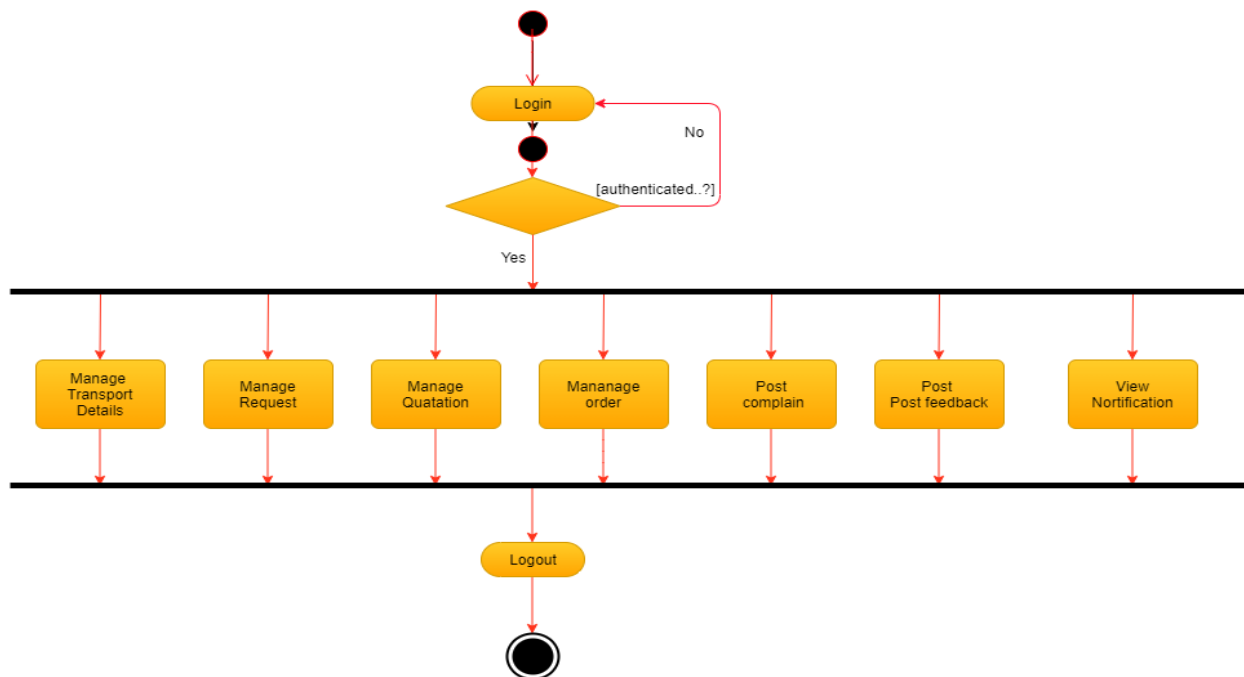


### 4.3.3 Activity diagram: -

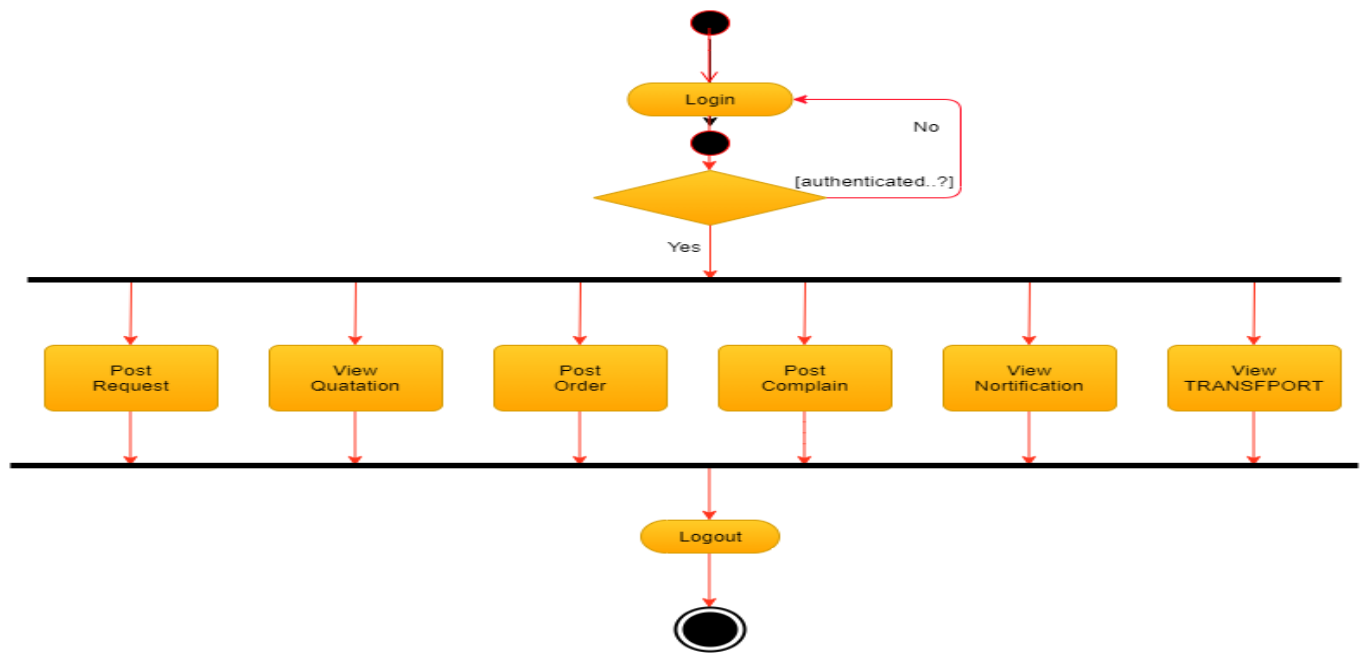
Admin:



Transport agency: -

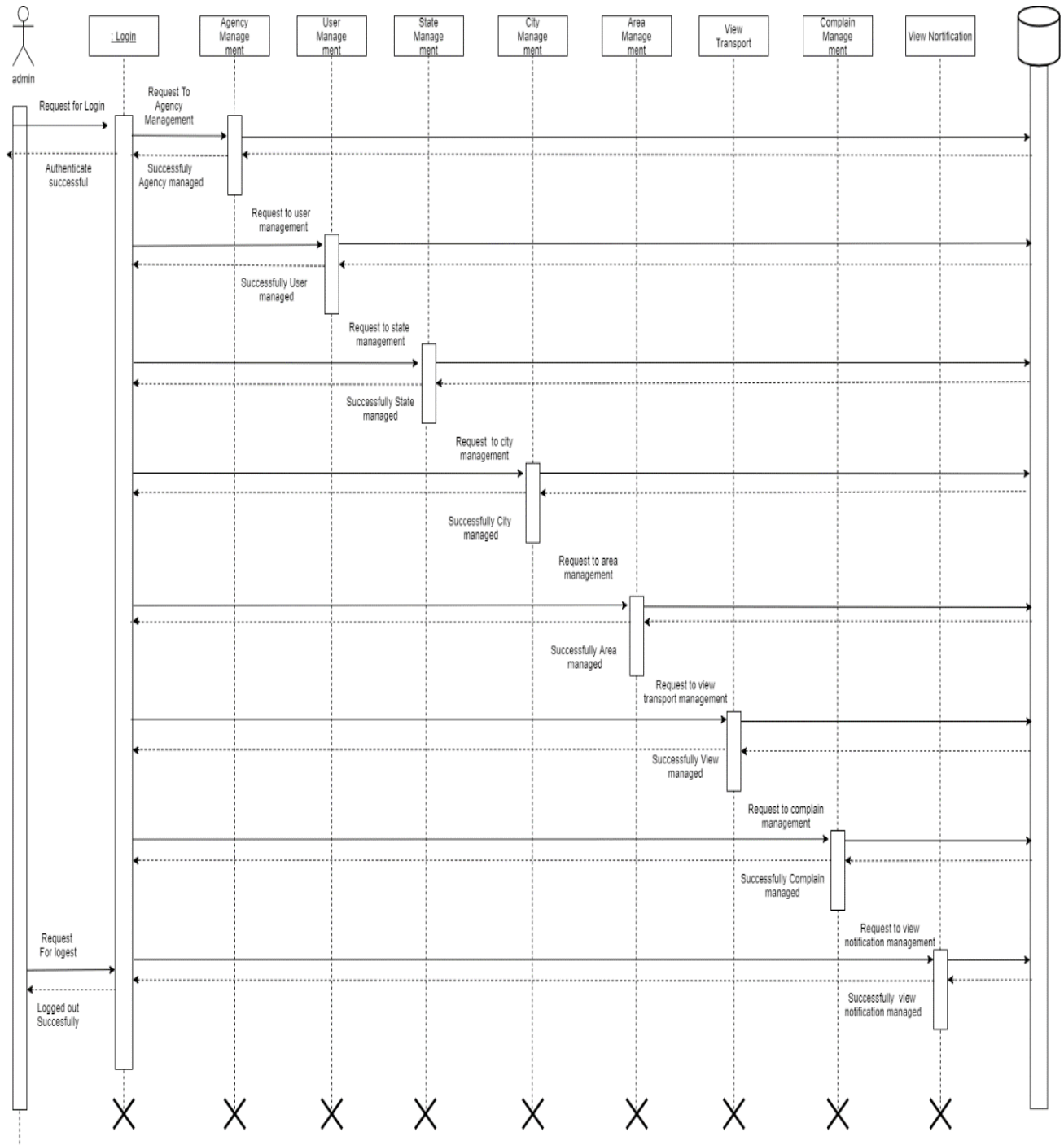


User: -

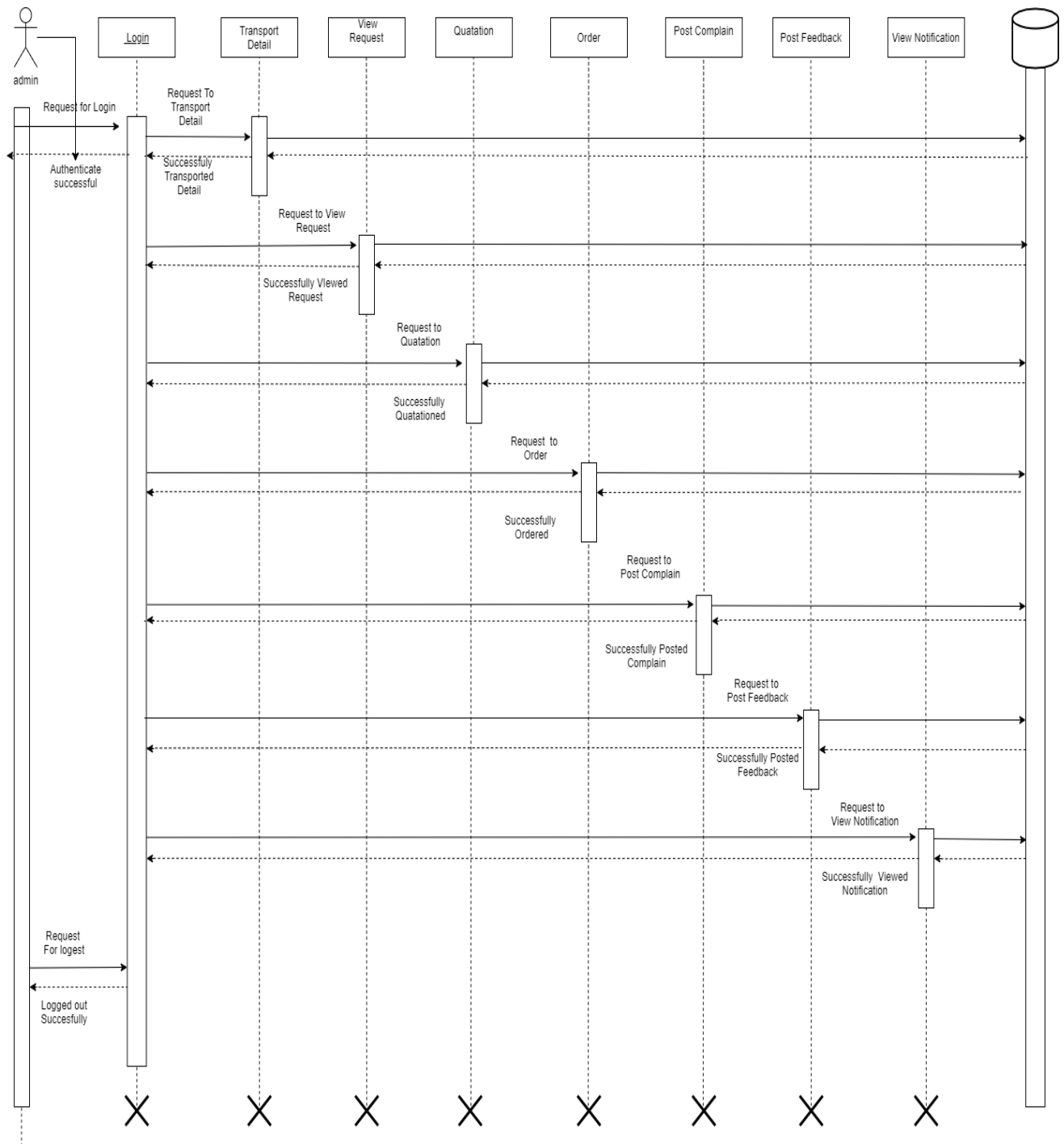


### 4.3.4 Sequence Diagram: -

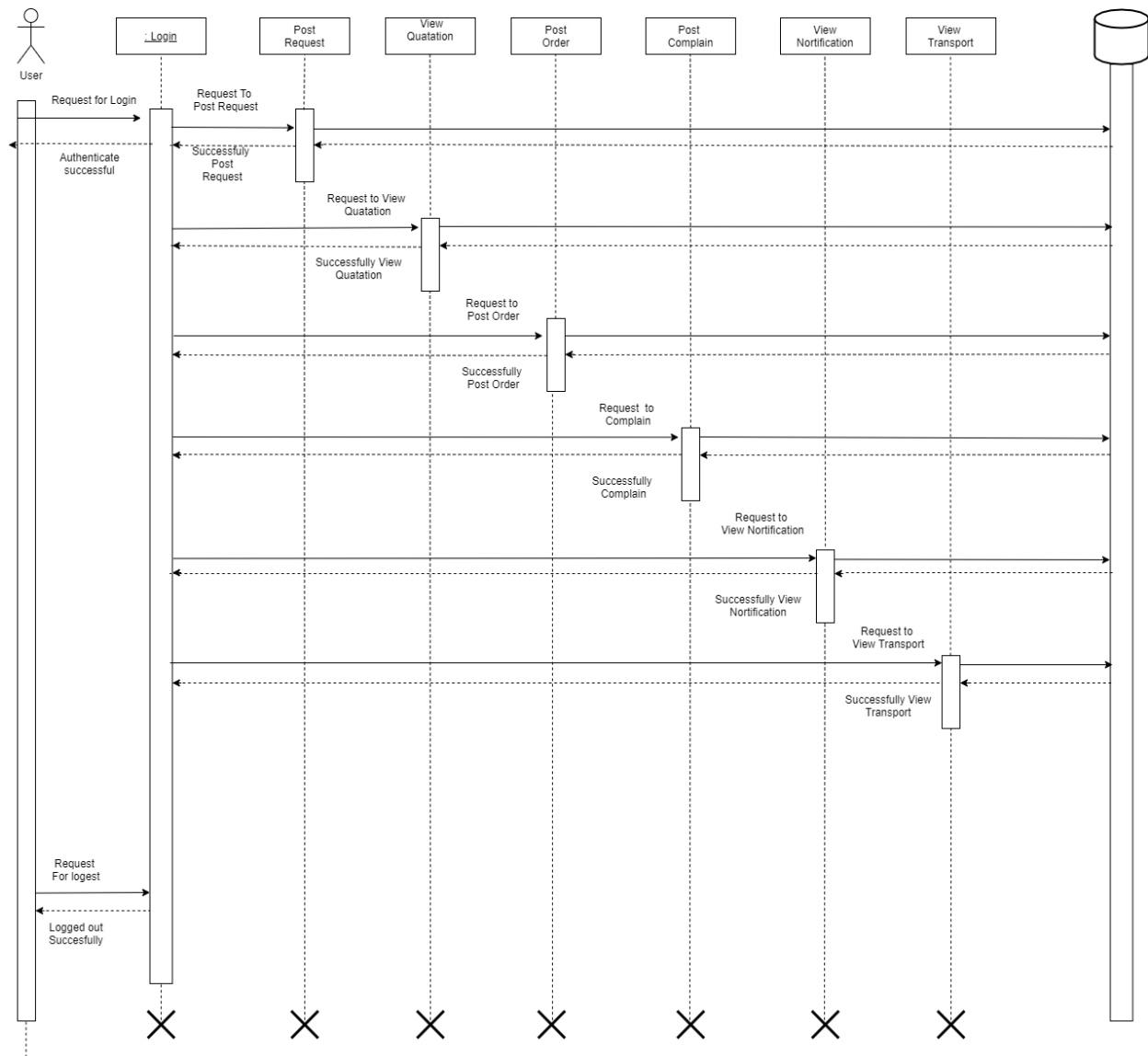
Admin:



## Transport agency:



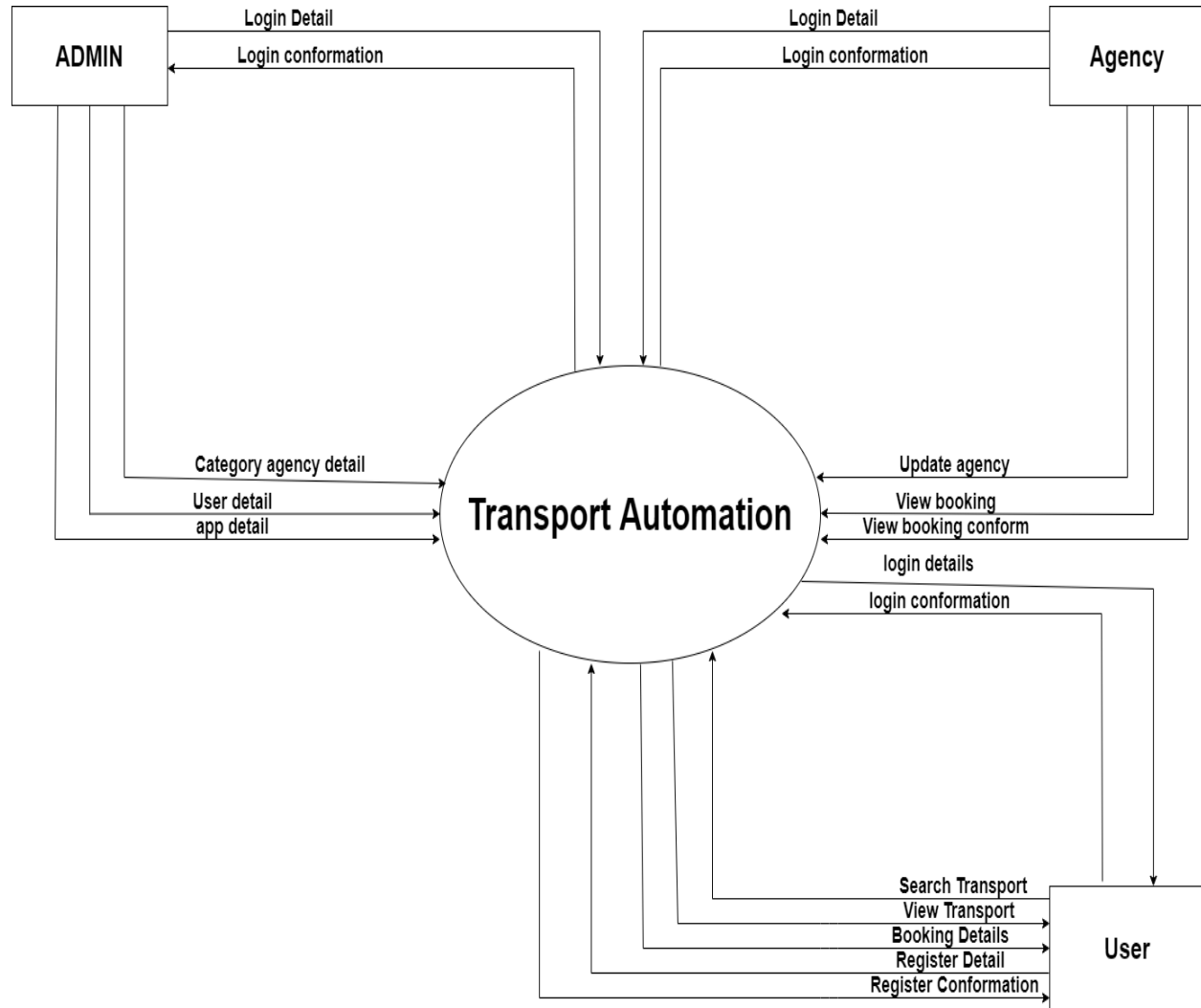
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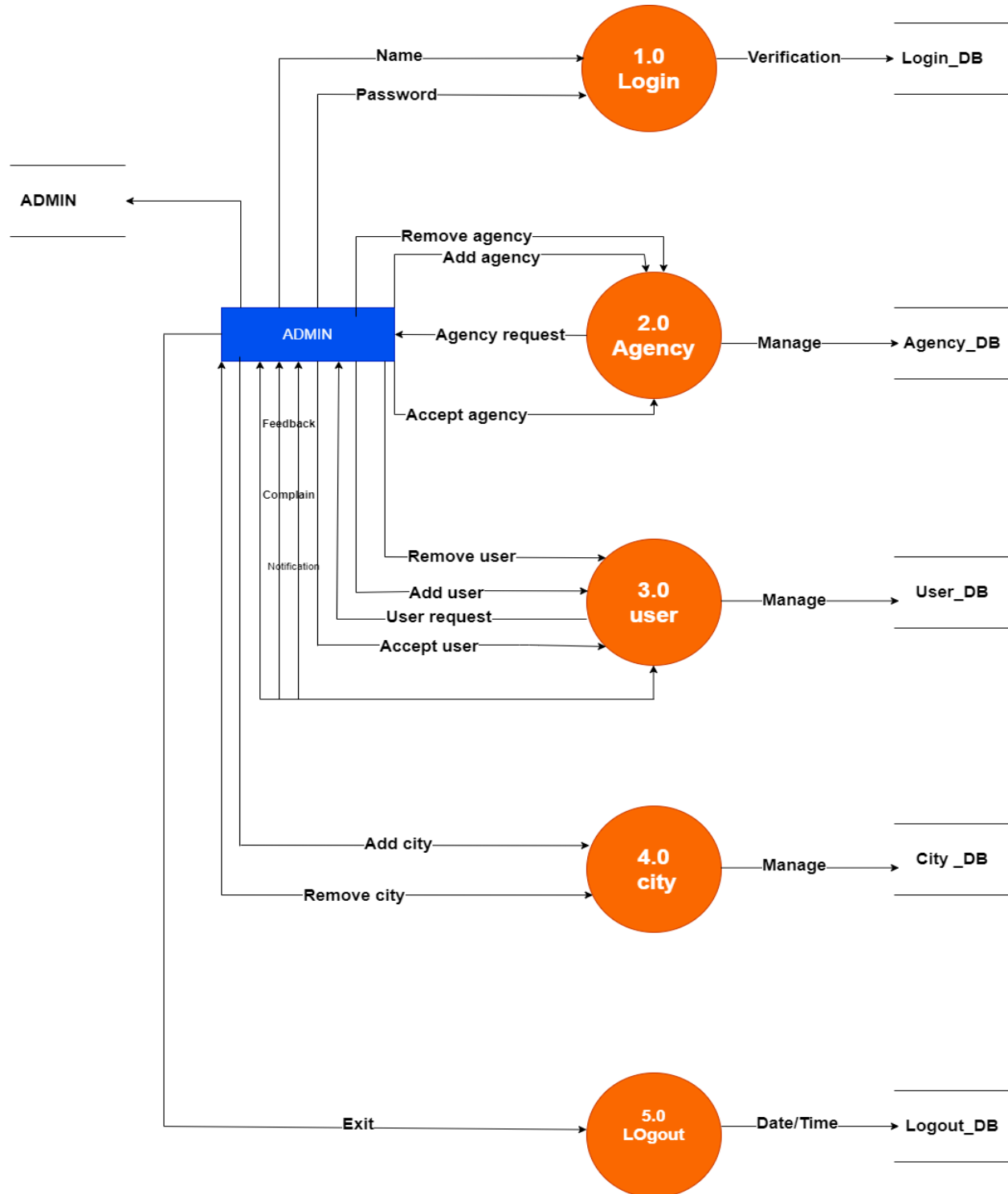


## 4.4 Function and Behavioral modeling: -

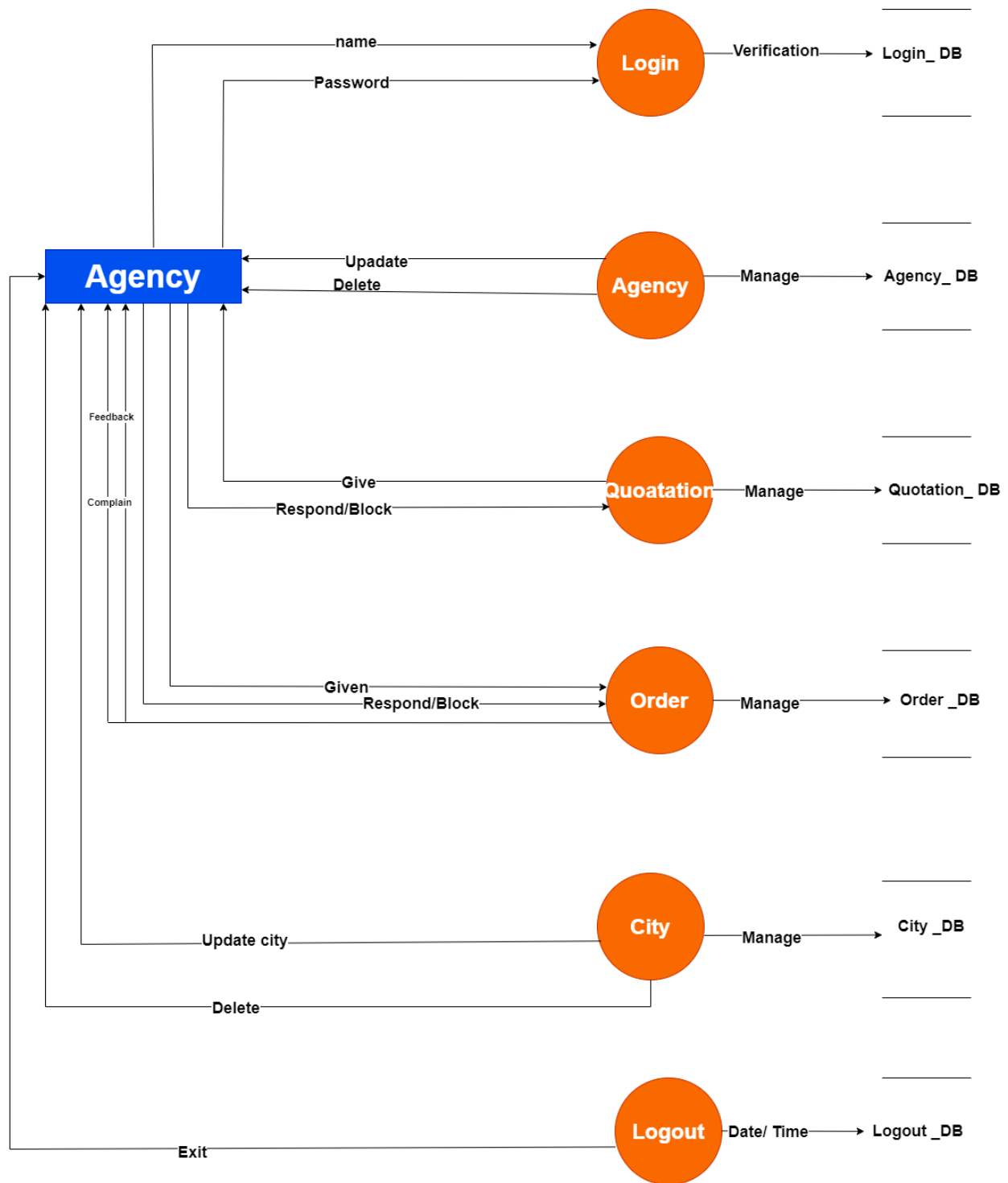
### 4.4.1 DATA FLOW:



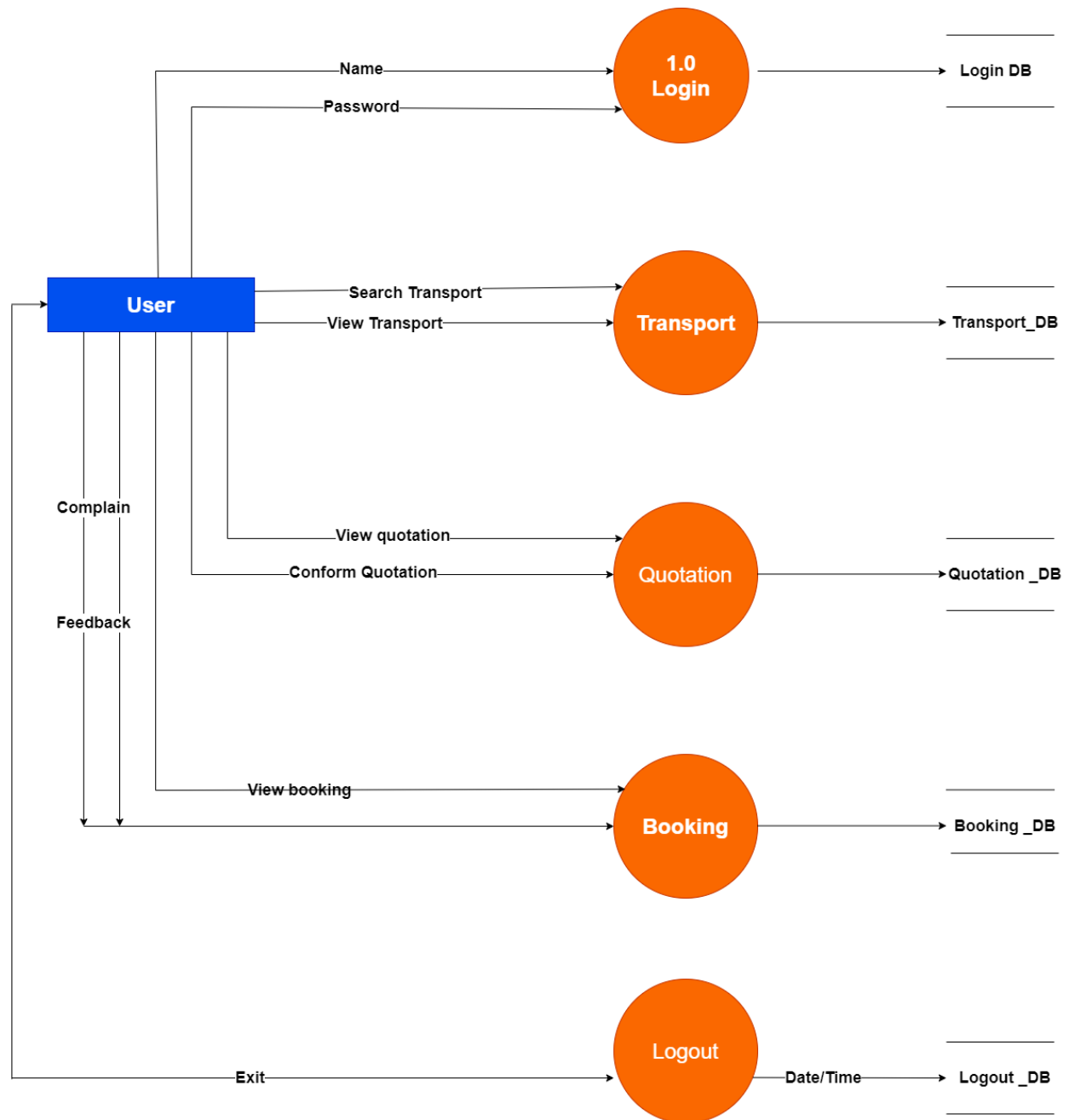
## 4.4.2 DFD (LEVEL1): ADMIN



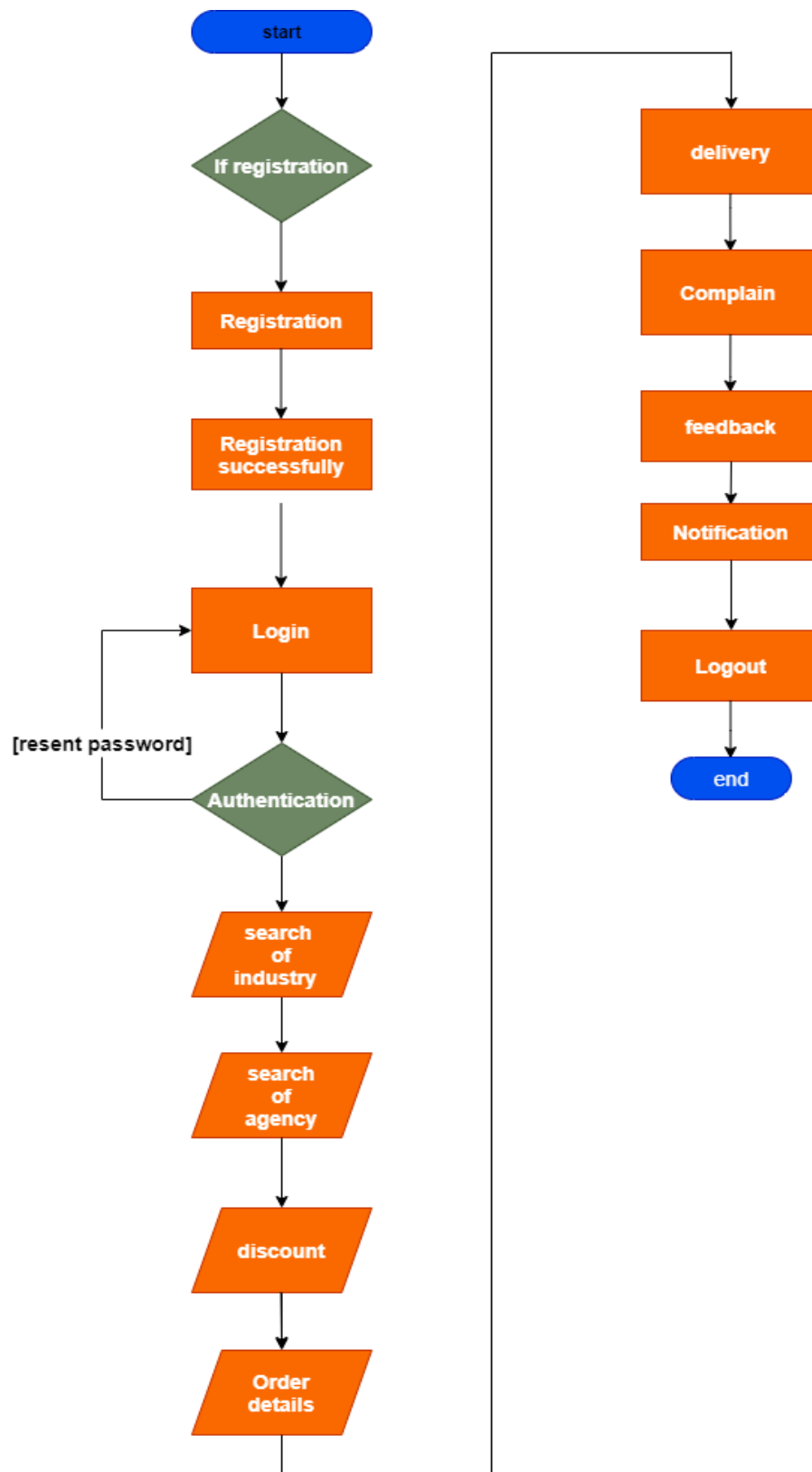
## 4.4.3DFD (LEVEL-2): TRANSPORT



## 4.4.3 DFD(LEVEL-3):USER



## 4.4.4 Flow chart:



## **CHAPTER 5**

### **DATA STRUCTURE**

#### **5.1 Database Schema Design: -**

Login Table: -

<b>Constraint</b>	<b>Field table</b>	<b>Data type</b>	<b>Description</b>
Primary key	Login	Int (11)	Login Id
Not Null	Login _Email	Varchar (100)	Login Email
Not Null	Login _Password	Varchar (100)	Login password
Not Null	Login _Role	Varchar (100)	Login Role

Agency Table: -

<b>Constraint</b>	<b>Field table</b>	<b>Data type</b>	<b>Description</b>
Primary key	Age _Name	Varchar (100)	Agency Name
Not Null	Age _Address	Varchar (200)	Agency Address
Not Null	Age _Contact	Varchar (11)	Agency Contact
Not Null	Age _City	Int (15)	Agency City
Not Null	Age _area	Int (15)	Agency Area
Not Null	Age _state	Int (15)	Agency State
Not Null	Register _date	date	Register Date
Not Null	Register no	Int (12)	Register No
Not Null	Email	Varchar (100)	Email
Foreign key	Login _id		
Foreign key	Agency _id		

User Table: -

<b>Constraint</b>	<b>Field table</b>	<b>Data type</b>	<b>Description</b>
Primary key	User First _name	Varchar (50)	User First Name
Not Null	User Last _name	Varchar (50)	User Last Name
Not Null	User _Gender	Varchar (15)	User Gender
Not Null	User _Address	Varchar (100)	User Address
Not Null	City	Int (15)	City
Not Null	State	Int (15)	State
Not Null	Area	Int (15)	Area
Not Null	Contact	Varchar (11)	User Contact
Foreign key	Login _id		Login id

Area Table: -

<b>Constraint</b>	<b>Field Name</b>	<b>Data type</b>	<b>Description</b>
Foreign key	City _name	Int (15)	City name
Not Null	Area _name	Int (15)	Area name
Not Null	Pin code	Data type	City pin code



Transport \_detail table: -

<b>Constraint</b>	<b>Field Name</b>	<b>Data type</b>	<b>Description</b>
Foreign key	Agency _id		Agency id
Primary key	Transport _detail id	Int (11)	Transport detail id
Not Null	Transport _name	Varchar (100)	Transport name
Not Null	Transport _category		Transport category
Not Null	Description	Data type	Transport description

## **Chapter:6**

### **Conclusion**

In this project, online transport will be available for industry. Until the industrial transport is handled manually but now through this application industrial transport will access online through application and it will use less time and deliver as per their period.

Future Work: -

I will do implementation in our next phase of project or 6th semester duration

## **CHAPTER:7**

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