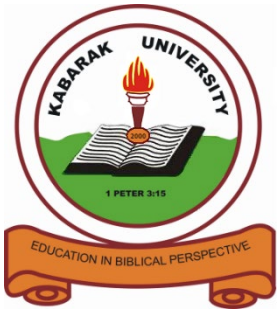


**KABARAK UNIVERSITY**

**SCHOOL OF SCIENCE ENGINEERING AND TECHNOLOGY**

**DEPARTMENT OF COMPUTER SCIENCE AND IT**

**PROJECT**

# PROJECT TITLE: ONLINE CINEMA BOOKING SYTEM

**A Project Report Documentation Submitted in The Department of Computer Science and IT in partial fulfillment of the degree of BBIT**.

Submitted on:

27/08/**2021**

By:

RANKUA STEPHEN SEMPELE BBIT/MG/0967/05/17

## DECLARATION

The work contained in this project document has not been previously documented in any other higher education institutions. To the best of my knowledge, ability, and belief the documents contain no material previously published or written by another person except where due references are made.

Name: Rankua Stephen Sempele

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Date: 31/08/2021

**Supervised by:**

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Sign: .....

Date: 31/08/2021

**ACKNOWLEDGEMENT**

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## ABSTRACT

Cinema has emerged as one of the best medium of entertainment to the world after having a hectic schedule. All the excitement started by standing for hours in a long line to get tickets. This online ticket reservation will provide a website for multiple cinemas where any user of the internet can access it. Users only require to login to the system and make their booking. They need to book a seat and in return receive a secret receipt ticket. The website will provide complete information of the current cinema available, time, payments and cancellation of the ticket. It will also allow owners to use the system to insert and delete any information needed to be updated and even maintain various details of the audiences.

# CHAPTER ONE

# INTRODUCTION

## 1.1. BACKGROUND OF THE STUDY

Online cinema booking system is basically made for providing the movie ticket anywhere and anytime and get information about the movies online. You will easily be able to know about the movies to be released, seat reservation, ticket cancellation and payment services; (e.g ATM, Credit/Debit cards, M-Pesa and Visa), time and titles and can then make a choice.

Staff have to sign in the website to update, cancel and upload of movies. The system allows the owner to keep track on available seats for a particular movie and even maintain various details of the audiences.

## 1.2. PROBLEM STATEMENT

The major problem that gives rise to this research project faced is; late seats reservation by customers, poor network services, inability to book seat by computer illiterate customers, corrupt and tactical customers who have ways of sneaking into the cinema hall with fake seats number printout.

## 1.3. OBJECTIVES

### 1.3.1 MAIN OBJECTIVES

Main objective of the online ticket booking system is to provide an alternate and convenient way for a customer to buy cinema tickets anywhere and anytime. It also provides the customer a chance to choose the cinema they wish to see as long as the movie is available in the cinema.

### 1.3.2 SPECIFIC OBJECTIVES

i. To establish an efficient way to promote the film on the internet.
ii. To minimize the number of staff at the ticket box and increase the profit.
iii. To reduce queue at ticket stands thus saves time.
iv. To provide an anytime, anywhere service for the customers to book their movie ticket.

## 1.4. JUSTIFICATION

To establish an efficient way to promote the film on the internet. Take the time to develop a social media strategy and see it through. Example by the graphic designs to attract customers on the display, stay consistent on displaying movies.

To minimize the number of staff at the ticket box and increase the profit. The minimization of the number of staff at the ticket box helps in the owner by saving some cash therefore increasing the profit. And also It saves a lot of money in printing cost because the company do not need to printout ticket to give to customers which get binned after film.

To reduce queue at ticket stands and saves time. Easy management and booking of tickets hence avoiding the long queues. It also saves a lot of time for the customers because, they do not need to arrive early to queue for ticket in case they are all sold out.

To provide an anytime, anywhere service for the customers to book their movie ticket. Online movie ticket reservation system is basically made for providing the customer's, anywhere and anytime service for booking the movies and enquire any information about the movies online. The user can easily be able to know about the movies released and then make choice based even with their prices.

## 1.5. SIGNIFICANCE OF THE STUDY

The main significance of the online cinema booking system is to provide another way for the customer to book for movie. The newly designed system is faster, more convenient and reliable. The online cinema booking will be accessed through the Internet and will always be available at any time for reservation and any enquiries about the tickets available

## 1.6. SCOPE OF THE STUDY

Main scope is to create a better and secure way of customers booking their desirable movie at anytime and anywhere. It will save on customers' labor on long queue of booking and their time thus providing comfort.

## 1.7. RESEARCH QUESTIONS

i. Can online cinema booking system increase profit?
ii. Can online cinema booking obtain statistical information of the customers?
iii. How can cinema online booking system establish an effective way to promote on the internet?

# CHAPTER TWO

# LITERATURE REVIEW

## 2.1. INTRODUCTION

The literature review involves a critical review of the existing work on the variables under the study and this also helps to answer the research questions and the membership between the theatre as well as what the researcher left out during the study.

## 2.2. OLD THEATER SYSTEM

Before the introduction of online cinema booking, in the box office, ticket books were used. When a movie was released, people used to go to the booking offices to get a ticket. The more popular the picture was; the more people would crowd to get their respective tickets. People used to queue all day at working hours to purchase seats for the film.

This caused disappointment at the last minute and therefore staffs would have a plan for each performance with the ticket book corresponding. The staff was also expected to know the performance in question so that customer question could be dealt with in a satisfactory manner. Also the staff would have to carefully mark off the seats on the seating plan for every ticket sold to avoid double booking.

## 2.3. RESEARCH

This online ticket reservation will provide a website for multiple cinemas where any user of the Internet can access it. Users only require to login to the system and make their booking. They need to make payments earlier as they book a seat and in return receive a secret code which they need to state at the reception to get the ticket. The website will provide complete information of the current cinema available, time, payments and cancellation of the ticket. It will also allow owners to use the system to insert and delete any information needed to be updated and even maintain various details of the audiences.

## 2.4. PROPOSED SOLUTION

A solution from the problem described above is providing an online booking system that will manage financial data and customer's information through a website. The major reason why the proposed application should be online is to provide an effective anywhere anytime booking system that customer can access all information about the theater either from the browser of a computer or that of a mobile phone.

## CHAPTER THREE

## RESEARCH METHODOLOGY

### 3.1 INTRODUCTION

Research methodology represents the framework that the researcher used to illustrate the procedures for collecting data for this study. The methodology for this study involve research design examining the type of data required and their sources, methods of data collection, data analysis and presentation techniques.

### 3.2 RESEARCH DESIGN

The system suited the study since it favored both staff and the customer and brought about interactive approach concerning the theatre and any inquiries.

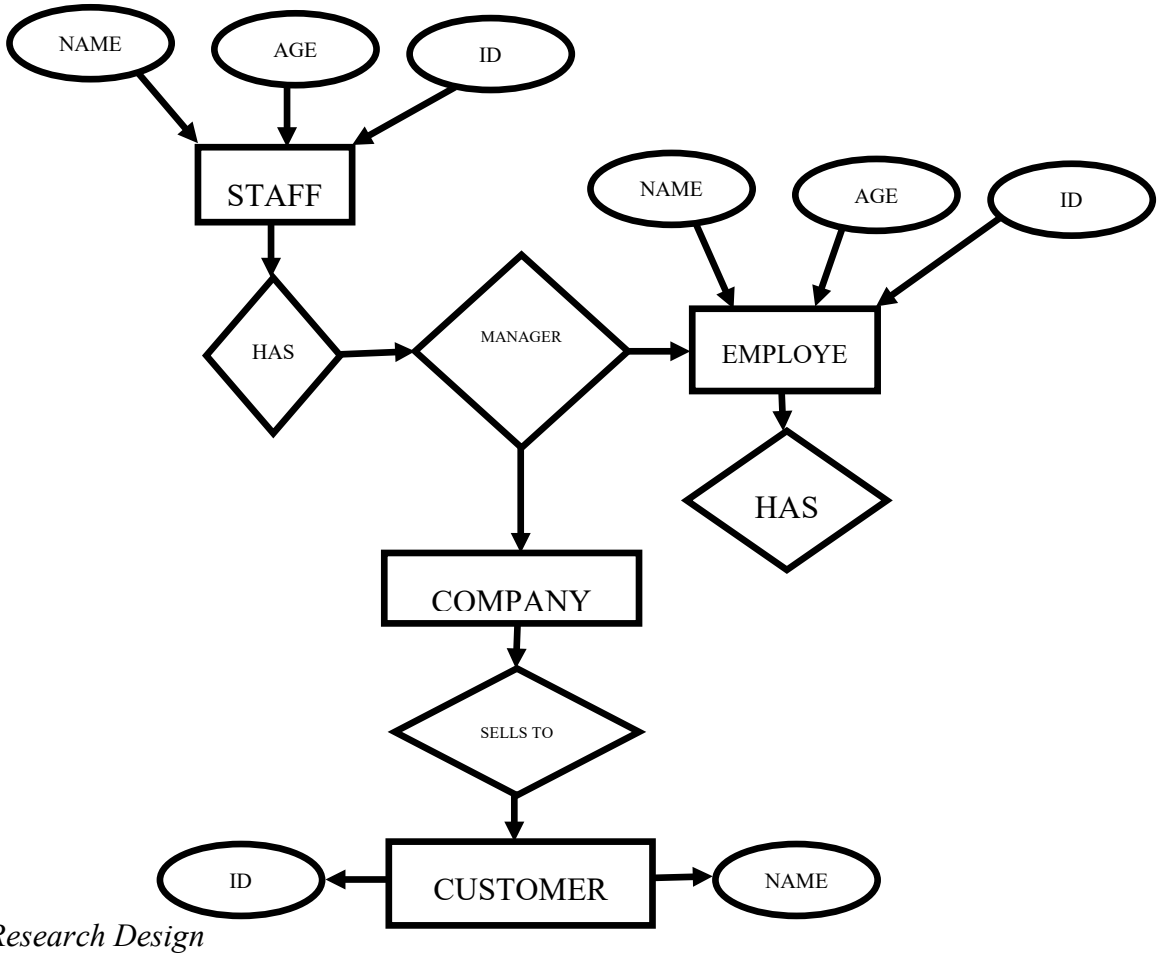


*Figure 1:Research Design*

## 3.3 DATA COLLECTION TOOLS AND NATURE OF DATA

The research collects both primary and secondary data. Primary data is collected through observation, questionnaire and open-ended questions. In secondary, data is obtained via review of documents.

I. Questionnaire-Questionnaire The information was obtained through visiting various theaters across major cities like Nairobi, and acquire through individuals who gave detailed information about the theaters. We found a loophole whereby some individuals got access to the theatre using illegal methods, such as fake account names and numbers.

II. Observation-Through observation there was congestion with the customers in the allocation of the seats which some individual staff assisted them appropriately. The study of the online system will have an interface of the theatre and the individual will know the allocation of the seat.

III. Open-ended questions. We also interviewed and asked the clients how they felt about the whole process, whether they had difficulties starting from booking to the show and the whole experience as a whole.

IV. Document review. This entailed identifying relevant documents in the different websites. This was mainly done using online review of the documents.

### 3.3.1 Document review

This study entailed identifying relevant movies available, booking, and updating of movies. This was mainly done using online review of the movies.

## 3.4 VALIDITY

Validity is the degree to which an instrument measures what it purports measures the research concentrate on content validity by performing a pre-test to adjust the research tool to meet the required standards. The results of the study were validated by reviewing it with other similar researches done

### 3.5 RELIABILITY

This is the degree to which research instrument would produce same results after repeated trials. The reliability of observation, questionnaires, open-ended questions and document review,

### 3.6 ETHICAL CONSIDERATION

We have also taken into consideration with this new system that some films are only suitable for appropriate audience's i.e., some movies will require a certain age to be booked and viewed due to their rating.

### 3.7 SYSTEM DESIGN

#### 3.7.1 CONCEPTUAL FRAMEWORK

The study sort to identify any challenges experienced and any inquiries from the customer. To better understands the variables involved, we use point conceptual framework that integrates both independent and dependent variables, the conceptual framework below is a research tool that purpose to build up a comprehension of the whole experience. The framework ALSO shows interactions involved with one another. The objects involve being the manager, staff and the customer.

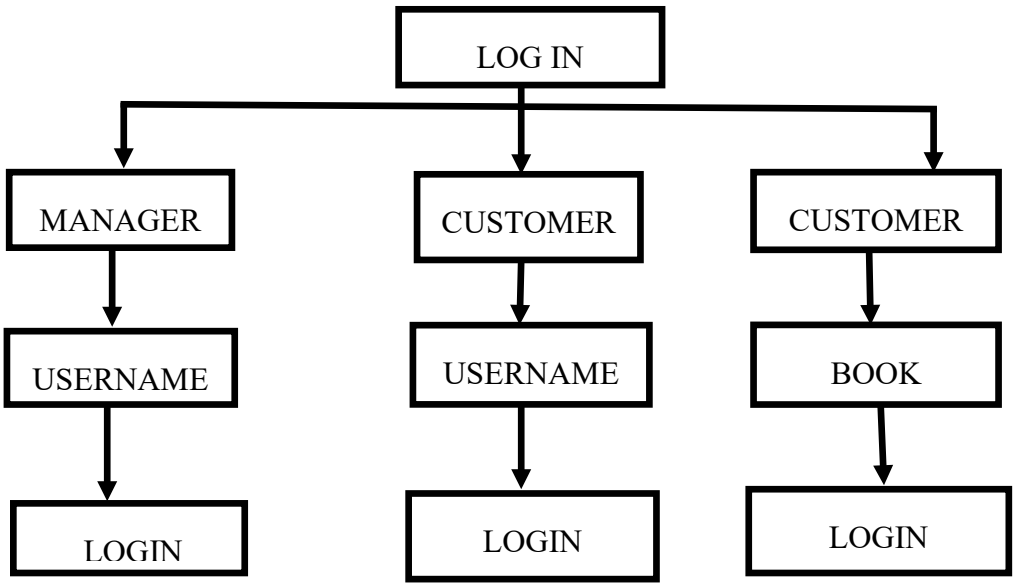


*Figure 2: Conceptual Framework*

### 3.7.2 CONTEX DIAGRAM

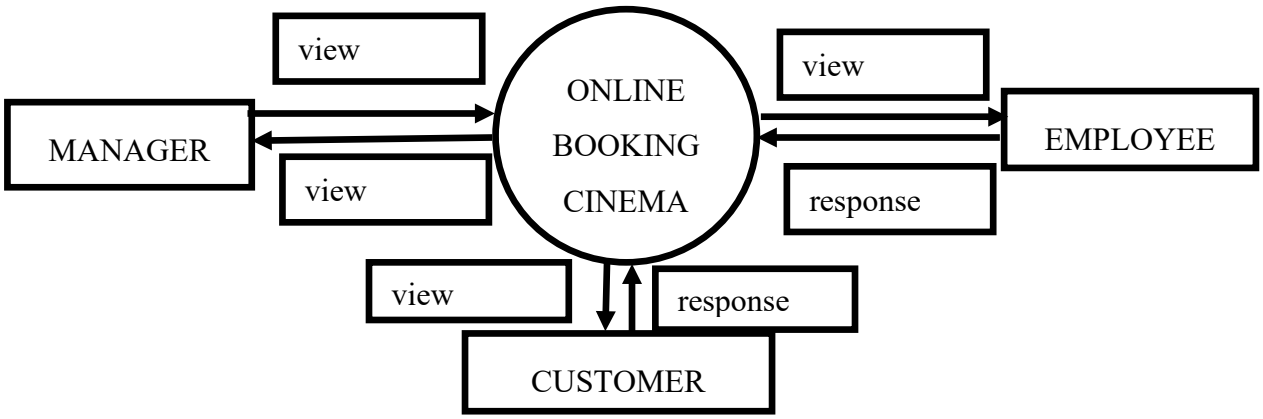


*Figure 3: Online Booking Cinema Context Diagram*

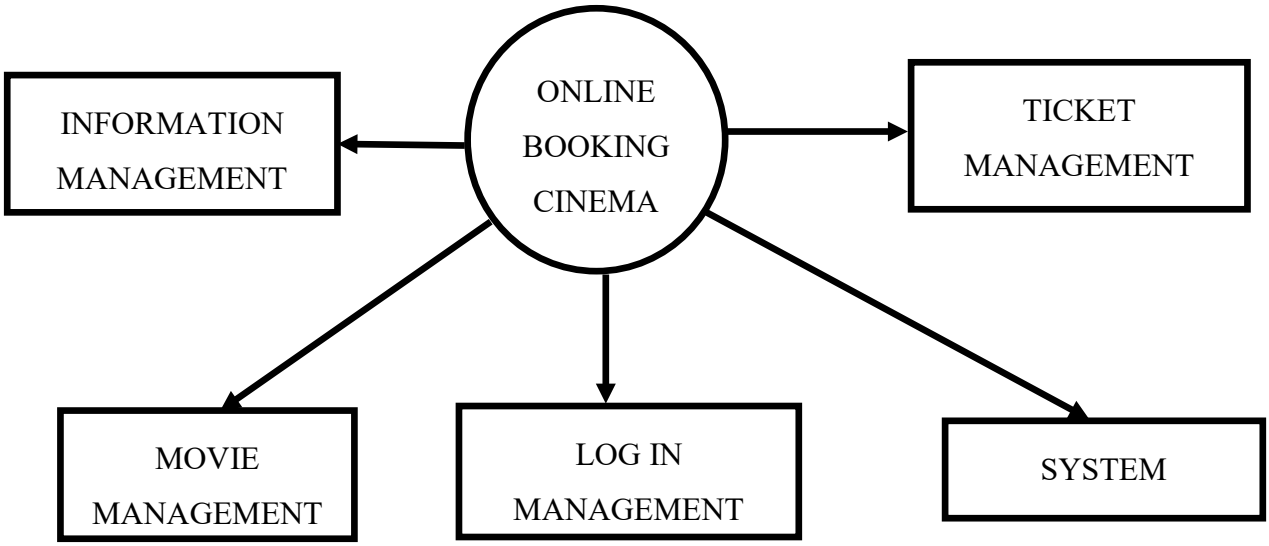


*Figure 4: Online Booking Cinema Context Diagram 2*

### 3.7.3 DATA FLOW DIAGRAM

As much as the collection of data from the field helps in data flow, a visual deception can explain the data flow better and simpler. this is obtained by use of a data flow diagram that leads to its understanding and interrelation.

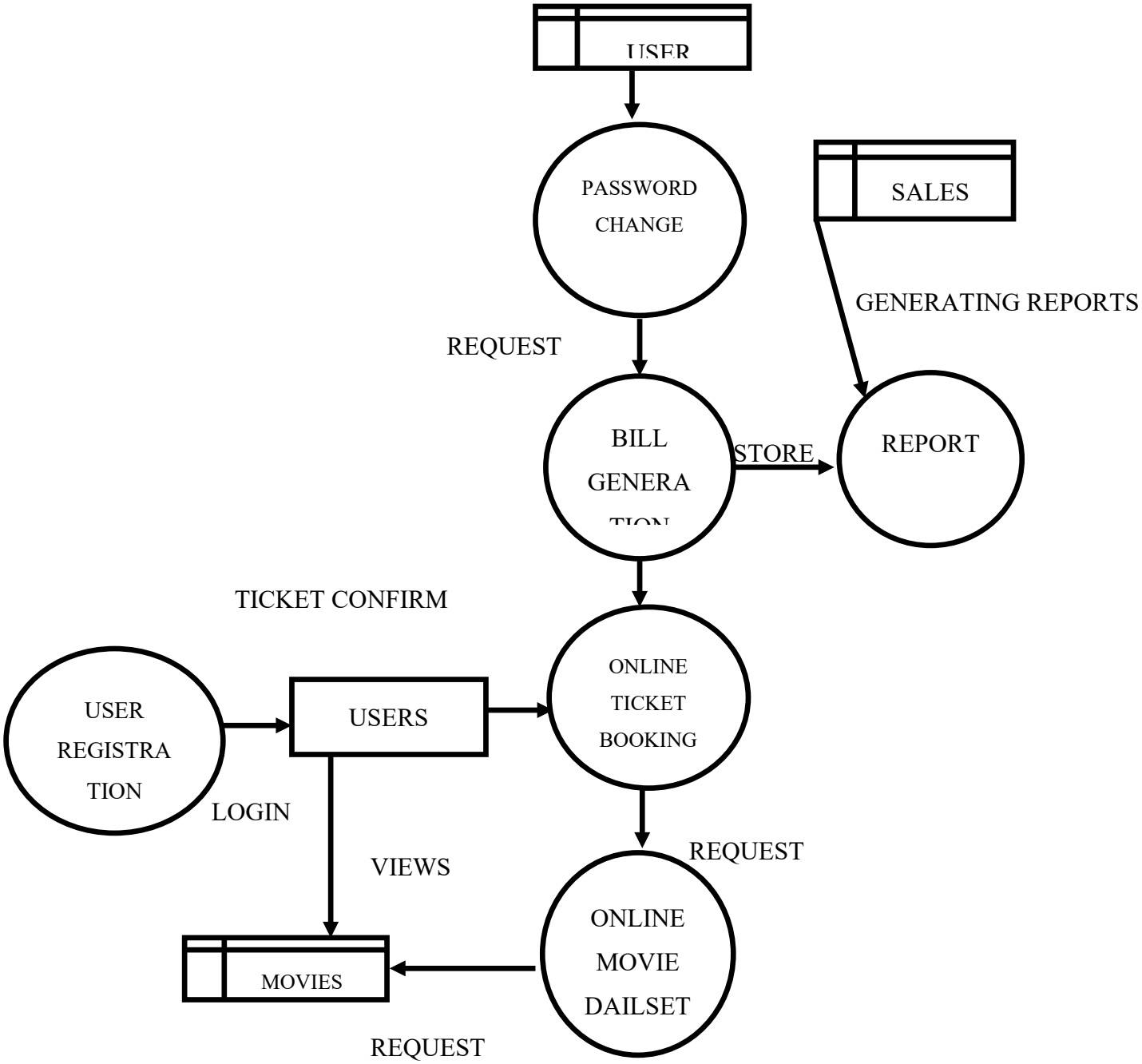


*Figure 5: Data Flow Diagram*

## CHAPTER FOUR: SYSTEM ANALYSIS AND DESIGN

### 4.1 ANALYSIS

#### 4.1.1 CURRENT SYSTEM

The current system is a manual one that is it involves the capturing of information by use of files.

#### 4.1.2 DATA FLOW DIAGRAMS.

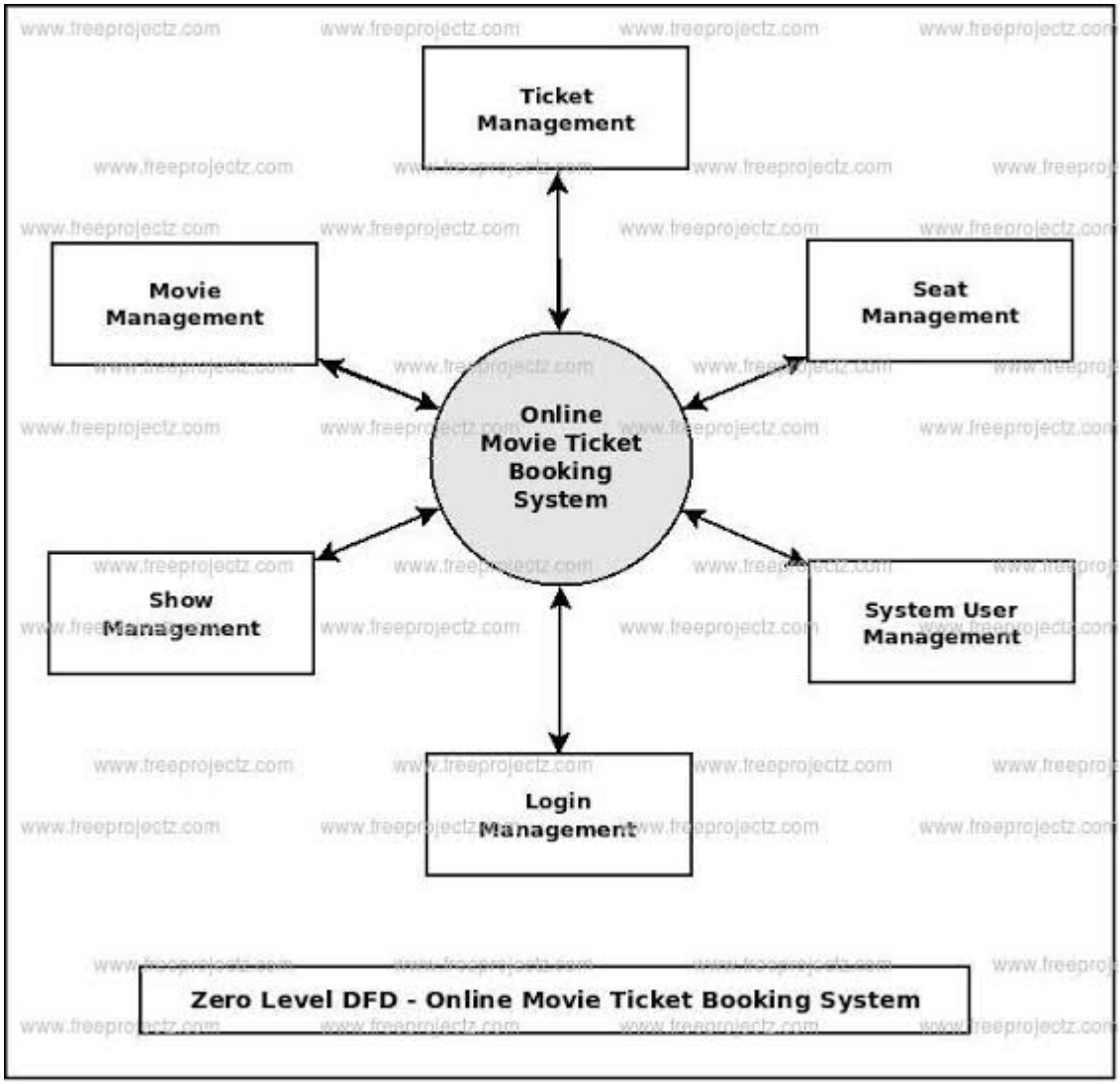


*Figure 6:Zero level DFD*

This is the Zero Level DFD of Online Movie Ticket Booking System, where we have elaborated the high level process of Movie Ticket.

It is a basic overview of the whole Online Movie Ticket Booking System being analyzed.

It is also designed to be an at-a-glance view of Show Timing, Movie language and Seats showing the system as a single high level process, with its relationship to external entities of Movie, Ticket, and Booking.

High Level Entities and process flow of Online Movie Ticket Booking System:

- Managing all the Movie.
- Managing all the Ticket.
- Managing all the Booking.
- Managing all the Show Timing.
- Managing all the Seats.
- Managing all the Movie Language.

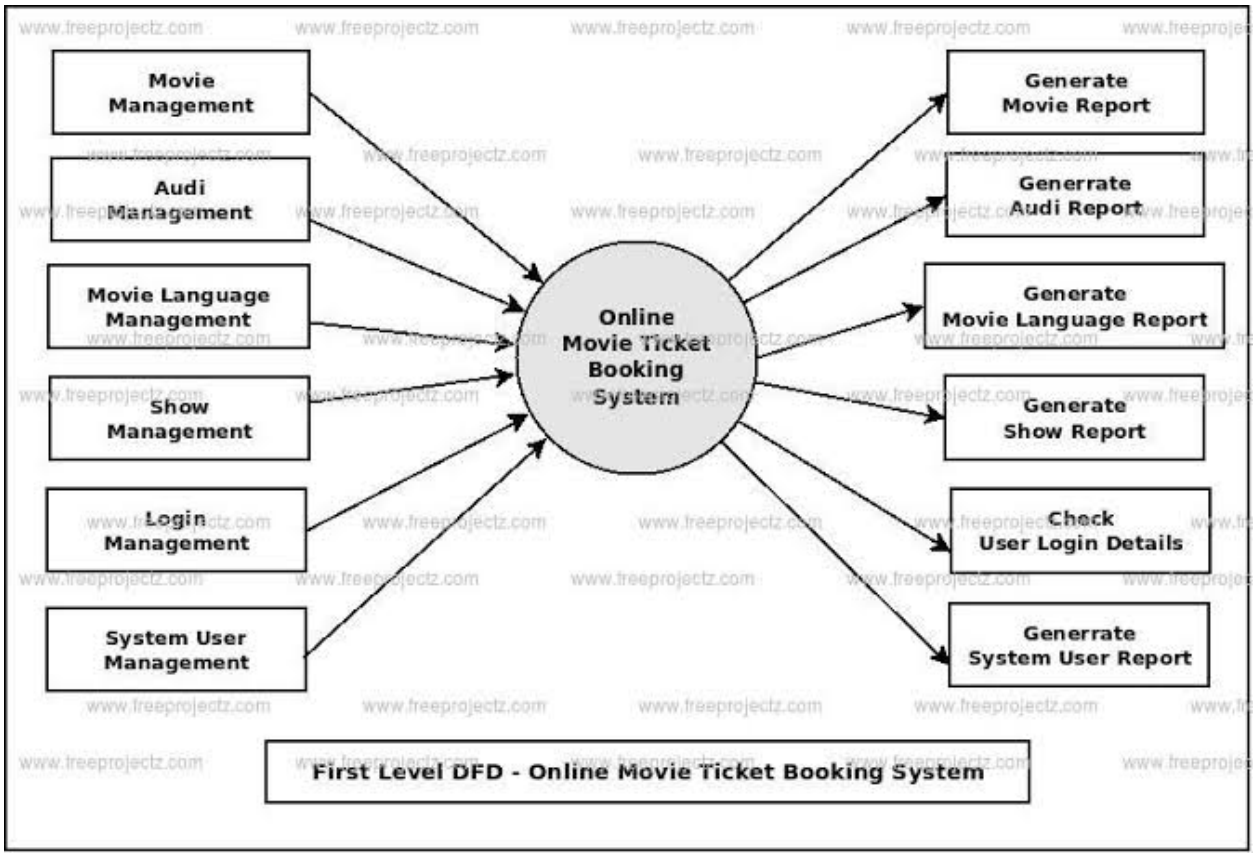


*Figure 7: First level DFD*

First Level DFD of Online Movie Ticket Booking System shows how the system is divided into sub-systems, each of which deals with one or more of data flows to or from an eternal agent, and which together provide all of the functionality of the Online Movie Ticket Booking System as a whole. It also identifies internal data stores of Seats, Movie Language, Show Timing, Booking that must be present in order for the Movie Ticket system to do its job, and shows the flow of data between the various parts of Movie, Booking, Movie Language, Seats, Show Timing of the system.

Main entities and output of First Level DFD:

- Processing Movie records and generate report of all Movie.
- Processing Booking records and generate report of all Ticket.
- Processing Show Timing records and generate report of all Show Timing.
- Process Movie Language records and generate report of all Movie Language.
- Process Seats records and generate report of all Seats.

### 4.1.3 DISADVANTAGES OF THE OLD THEATER SYSTEM.

**i.** Actors may find the intimacy intimidating.
**ii.** Sight lines can be an issue.
**iii.** It is very challenging to block as there is no clear US/DS/SL/SR.
iv. Everything can be seen from all angles so requires detail.

### SYSTEM REQUIREMENT DETERMINATION.

Requirement determination was carried out through several methods; Observation, Interviews, Questionnaires and Document Analysis. It was important to clearly understand what the user expects of the system when it is fully operational and its running environment. In gathering the user requirements, different people in various Companies offering Cinema Booking services were involved so as to come up with optimal requirements.

### 4.1.5 OBSERVATION.

The researcher used Observation to closely watch the activities in various **companies** under the manual system.

### 4.1.6 INTERVIEWS.

Semi-standardized Interviews will be used to collect qualitative data from the respondents. The researcher interviewed employees, managers and suppliers of some Cinema Booking Companies and the responses to the questions on the Interview schedule were recorded in a notebook as the interview is going on.

### 4.1.7 QUESTIONNAIRES.

The researcher prepared a number of questionnaires and distributed them to various staff members which were filled confidentially and returned.

### 4.1.8 DOCUMENT ANALYSIS.

The researcher analyzed a number of manual documents. These included: invoices, customer orders, receipts and pay slips.

### 4.1.9 THE NEW SYSTEM.

Any Computerized system is composed of components that include the people, data, functions, hardware and software.

### 4.1.10 OBJECTIVES OF THE NEW SYSTEM

i. To manage the details of Movie.
ii. To manage the details of Ticket.
iii. To manage the details of Show Timing.
iv. To manage the details of Seats.

**Advantages of the New System**

The new system is advantageous in that it brings about;

i. Convenience.
ii. Customer satisfaction.

**Disadvantages of the New System.**

**i.** You need internet access.
**ii.** Avoid booking systems that do not bring you quality customers.

**iii.** Not all booking systems are created equal.

**iv.** You need to be ready for a flux of new customer.

### 4.1.11 CONCLUSION ON ANALYSIS

The new system is justifiable for implementation since the cost of implementation is low and has more advantages; accuracy, effective security, efficient and consistent records.

## 4.2 SYSTEM DESIGN

### 4.2.1 SECURITY CONTROLS

Passwords have been used to stop unauthorized use. There is a user/customer password and an administrator password. The users have a limited access while the administrator has full access to the system. For example, a user can not add or edit the product details.

# CHAPTER FIVE: SYSTEM IMPLEMENTATION AND TESTING

## 5.1. INRODUCTION

This chapter describes the implantation, coding, testing, and the deployment of the project and where the solution domain began.

## 5.2 IMPLEMENTATION

Online Cinema Booking System is a web based system. It is developed using the following programming languages and run in support of XAMPP application;

- MYSQL: It supports most relational database and a few simple SQL statements. It's secure. MYSQL includes solid data security layers that protect sensitive data from intruders. Rights can be assigned to allow some or all privileges to users. Passwords are encrypted.
- PHP: It provides a user friendly and interactive website and also enables visitors to freely interact while producing a very flexible and dynamic content. Ease of use: It is very easy to learn as compared to the other programming languages. The PHP syntax can easily be parsed. It is cost-effective with a free license. The big advantage of it is; its interoperability with multiple operating systems and servers.
- CSS (Cascaded style sheets): It implies design changes by separating content from design and enables us to create different style sheets for users.
- JAVASCRIPT: For client side scripting. Being client-side, JavaScript is very fast because any code functions can be run immediately instead of having to contact the server and wait for an answer. JavaScript is relatively simple to learn and implement.
- XAMPP: Is a small and light apache distribution containing the most common web development technologies in a single package. Its contents, small size, and portability make it the ideal tool for students developing and testing web based systems in PHP and MySQL. XAMPP is available as a free download.

## 5.3 CODING

```
<?php

include 'db_connect.php';

if(isset($_GET['id'])){
```

```
                $mov = $conn->query("SELECT * FROM movies
                where id =".$_GET['id']);

                foreach($mov->fetch_array() as $k => $v){

                        $meta[$k] = $v;

                        if($k == 'duration' && !is_numeric($k)){

                                $v = explode('.',$v);

                                $meta['duration_hour'] = $v[0];

                                $v[1] = isset($v[1]) ? $v[1] : 0;

                                $meta['duration_min'] = 60 *
('.'.$v[1]);

                        }

                }

}

?>

<div class="container-fluid">

                <div class="col-lg-12">

                        <form id="manage-movie">

                                <div class="form-group">

                                        <input type="hidden"
name="id" value="<?php echo isset($_GET['id']) ?
$_GET['id'] : '' ?>">
```

**<label for="" class="control-label">Movie Title</label>**

**<input type="text" name="title" required="" class="form-control" value="<?php echo isset($meta['title']) ? $meta['title'] : '' ?>">**

** **

** **

**<label for="" class="control-label">Description</label>**

**<textarea name="description" class="form-control" id="" cols="30" rows="3" required><?php echo isset($meta['description']) ? $meta['description'] : '' ?></textarea>**

** **

** **

**<label for="" class="control-label col-md-12">Duration</label>**

**<input type="number" name="duration_hour" required="" class="form-control col-sm-2 offset-md-1 " value="<?php echo isset($meta['duration_hour']) ? $meta['duration_hour'] : '' ?>" max="12" min="0" placeholder="Hour">:**

**<input type="number" name="duration_min" required="" class="form-control col-sm-2 " max="59" min="0"**

```
value="<?php echo isset($meta['duration_min']) ?
$meta['duration_min'] : '' ?>" placeholder="Min">

                </div>

                <div class="form-group">

                        <label for="" class="control-
label">Showing Schedule</label>

                        <input name="date_showing"
id="" type="date" class="form-control"
value="<?php echo isset($meta['date_showing']) ?
$meta['date_showing'] : '' ?>" required>

                </div>

                <div class="form-group">

                        <label for="" class="control-
label">End Date</label>

                        <input name="end_date"
id="" type="date" class="form-control"
value="<?php echo isset($meta['end_date']) ?
$meta['end_date'] : '' ?>" required>

                </div>

                <div class="form-group">

                        <img src="../assets/img/<?php
echo isset($meta['cover_img']) ? $meta['cover_img']
: '' ?>" alt="" id="cover_img" width="50"
height="75">

                </div>
```

```
                    <div class="form-group input-
group">
                        <label for="" class="control-
label">Cover Image</label>
                        <br>
                        <div class="input-group-
prepend">
                          <span class="input-group-
text">Upload</span>
                        </div>
                        <div class="custom-file">
                          <input type="file"
name="cover" class="custom-file-input" id="cover-
img" onchange="displayImg(this,$(this))">
                          <label class="custom-file-
label" for="cover-img">Choose file</label>
                        </div>
                    </div>

                </form>
            </div>
        </div>
```

```
<script>
                $('#manage-movie').submit(function(e){
                    e.preventDefault()
                    start_load()
                    $.ajax({
                        url:'ajax.php?action=save_movie',
                        data: new FormData($(this)[0]),
                    cache: false,
                    contentType: false,
                    processData: false,
                    method: 'POST',
                    type: 'POST',
                        error:err=>{
                            console.log(err)
                        },
                        success:function(resp){
                            if(resp == 1){
                                alert_toast('Data
successfully saved.','success')
                                setTimeout(function(){
                                    location.reload()
```

```
                                    },1500)

                                    // end_load()

                                }

                            }

                        })

                })

                            function displayImg(input,_this) {

                               if (input.files && input.files[0]) {

                                  var reader = new FileReader();

                                  reader.onload = function (e) {

                                     $('#cover_img').attr('src',
e.target.result);


                        _this.siblings('label').html(input.files[0]['nam
e'])
                        _this.siblings('input[name="fname"]').val('<?
php echo strtotime(date('y-m-d H:i:s'))
?>_'+input.files[0]['name'])

                            var p = $('<p></p>')

                                  }
reader.readAsDataURL(input.files[0]);



</script>
```

## 5.4 TESTING

The system underwent through Unit and System testing to ensure that no bug was left unattended. At the Unit level both errors at the input and output interfaces of the functions and subroutines were dealt with. This was achieved through thorough validation of input data to ensure that the data to be inserted into the database is error free.

### 5.4.1 Unit Testing

This involves the testing of all the modules separately to ensure that they are working as expected and that failures are handled appropriately. This results in a system which is error tolerant, reliable and dependable.

### 5.4.2 System Testing

System testing is integration testing which involves bringing the modules together to ensure they work as a system in order to achieve the required result. The various modules (Input, Processing and Output) were integrated into one single application.

### 5.4.3 DOCUMENTATION

It is said that documentation is no phase because it is an ongoing process throughout the development process. Therefore, documentation was done at level of development process. After a thorough study of the requirements of the system, requirement specification document was written outlining all the functional and non-functional requirements of the system. This is clearly seen in the analysis section of this document. The requirements specification documents were used to come up with the design specification which in turn was used in the construction of the system.

## 5.5 USER MANUAL

### 5.5.1 INSTALLATION STEPS

1. Install the **XAMPP**.
2. Copy the **auto** folder in the **C:\\xampp/htdocs**

### 5.5.2 INSTALLING THE DATABASE

1. Run the **XAMPP** application (make sure that the **apache** and **MySQL** are running.)
2. Open browser (Google Chrome, Mozilla Firefox, Opera mini, Microsoft Edge)
3. Type the URL **“localhost/phpmyadmin”**

4. Create Database with the name **auto_2**.
5. Click the created database and import the sql**(auto_2.sql)**

### 5.5.3 ACCESSING THE SYSTEM

1. Run the **XAMPP** application (make sure that the **apache** and **MySQL** are running.)
2. Open browser (Google Chrome, Mozilla Firefox, Opera mini, Microsoft Edge)
3. Type the URL “localhost/auto”

**5.6**

## RECOMMENDATION AND CONCLUSION

### 5.6.1 CONCLUSION

The current manual system should be replaced immediately by this automated system since this software handles tasks with easiness, efficiency and with maximum security. In addition, it generates reports of all kinds of information requested by the user easily with consistence.

### 5.6.2 RECOMMENDATION

I therefore recommend that for effective management of records this system will lead to easier update, retrieval, storage of information, reduce redundancy hence will lead to accurate, efficient and effective records and information management.

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## APPENDICES

### Appendix 1: schedule

*Table 1:schedule*

| ACTIVITY | JANUARY | FEBRUARY | MARCH | APRIL |
|---|---|---|---|---|
| **Software requirement** | | | | |
| **ID NUMBER** | | | | |
| **NAME** | | | | |
| **RECEPT NUMBER** | | | | |
| **MOVIES** | | | | |

### Appendix 2: BUDGET

*Table 2: budget*

| S/No | Items | Amount (KShs) |
|---|---|---|
| a. | Stationeries | 600 |
| b. | Transport Cost | 1,000 |
| c. | Data Collection | 200 |
| d. | Administrative Support | 700 |
| e. | Miscellaneous (Printing) | 600 |
| | Total | 3,100 |

Note: The budget will be adjusted according to the actual cost.