Industrial Practical Training Report- II

on

MovieSeries Info

submitted in partial fulfillment of the requirements
for the award of the degree
of

Bachelor of Technology

in

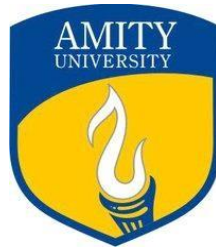**Computer Science and Engineering**

By

Shreyash Mehta

Enrollment No. A60205216031

Under the guidance of

Prof. (Dr.) Arvind Kumar Upadhyay

Professor

Department of Computer Science and Engineering
Amity School of Engineering & Technology
Amity University Madhya Pradesh, Gwalior
November 2019

Department of Computer Science and Engineering
Amity School of Engineering and Technology
Amity University Madhya Pradesh, Gwalior

<u>DECLARATION</u>

I, **Shreyash Mehta**, student of Bachelor of Technology in Computer Science and Engineering hereby declare that the Industrial practical training-II report entitled **"MOVIESERIES INFO"** which is submitted by me to Department of Computer Science and Engineering, Amity School of Engineering & Technology, Amity University Madhya Pradesh, in partial fulfillment of the requirement for the award of the degree of Bachelor of Technology in Computer Science and Engineering, has not been previously formed the basis for the award of any degree, diploma or other similar title or recognition.

Shreyash Mehta

Date: (Enrollment No. – A60205216031)

Department of Computer Science and Engineering
Amity School of Engineering and Technology
Amity University Madhya Pradesh, Gwalior

CERTIFICATE

This is to certify that **Shreyash Mehta (Enrollment No. A60205216031),** student of B.Tech (CSE) VII semester, Department of Computer Science and Engineering, ASET, Amity University Madhya Pradesh, has done his industrial practical-II training entitled **"MOVIESERIES INFO"** under my guidance and supervision during **"26 May 2019 – 12 July 2019"**

The work was satisfactory. He has shown complete dedication and devotion to the given project work.

Date:

(Prof. (Dr.) Arvind Kumar Upadhyay)
Professor
Supervisor   External Examiner

(Prof.(Dr.) Venkatadri Marriboyina)

Head of the Department

numeric
infosystem private limited.

NIS-19/B.Tech/I-Tr-281

Date: 25/09/2019

This is to certify that **Mr. Shreyash Mehta** B.Tech (CSE) **(AMITY UNIVERSITY, Gwalior)** has completed Internship at Numeric Infosystem Pvt. Ltd. From **JUNE, 2019 to AUG, 2019.**

Technology: **REACT JS , NODE JS**

We found him sincere, hardworking, and technically sound and result oriented. He worked well as a part of team during his tenure. We take this opportunity to thank him and wish him all the best for his future.

For
NUMERIC INFOSYSTEM PVT. LTD.

(Authorized Signatory)

ACKNOWLEDGEMENT

ABSTRACT

The primary reason for learning a JavaScript based front-end library for web and versatile application improvement. There are many front-end application improvement structures and libraries right now. ReactJS library, one of the latest web advancements, is one of them. It has been demonstrated as the quickest rendering li-brary. It centers around the view some portion of the MVC design and is as a rule broadly received for huge scale application improvement.

Being created by Facebook for their interior use, it has demonstrated as a proficient and quick library contrasted with different innovations. Be that as it may, it has been publicly released later on and improved with more functionalities regularly by a lot of benefactors. With regards to managing a lot of information and clients, it has been very effective to give better client encounters. Close by Facebook, some other enormous associations and applications are likewise utilizing ReactJS and React Native for their advancement. Instagram, Netflix, Airbnb are a couple of the huge names serving easily huge quantities of clients around the world. Those huge names demonstrate that ReactJS is serving them great.

All through the examination, the primary expectation was to assess the library and to demonstrate Re-actJS as a perfect stage to be embraced where there are a few alternatives to browse. The basics, center design, highlights, information dealing with techniques, prevalence, and adoptability were talked about in this examination. Despite the fact that, there is no imperative to utilize ReactJS over different systems it is prescribed to utilize it as a rising web technol-ogy to be received relying upon the idea of the proposed application to be constructed.

Keywords: React, Video.

LIST OF FIGURES

LIST OF ABBREVIATIONS

S. No.	Terms	Expanded Form
1	API	Application Programming Interface
2	CSS	Cascading Style Sheet
3	DOM	Document Object Model
4	ECMA	European Computer Manufacturers Association
5	HTML	Hyper Text Markup Language
6	HTTP	Hyper Text Transfer Protocol
7	I/O	Input /Output
8	JSON	JavaScript Object Notation
9	LAMP	Linux, Apache, Mysql and PHP
10	MIT	Massachusetts Institute of Technology
11	MVC	Model View Controller
12	NCSA	National Center for Supercomputing Applications
13	NPM	Node Package Manager
14	PHP	Personal Home Page
15	RDBMS	Relational Database Management System
16	UI	User Interface
17	URL	Uniform Resource Locator
18	VM	Virtual Machine
19	WAMP	Windows, Apache, Mysql and PHP
20	XAMPP	Cross-Platform, Apache, MariaDB(Mysql), PHP and Perl

CONTENTS

Chapter 1

INTRODUCTION

1.1 Introduction

JavaScript could in like manner be a raised level, dynamic, un created, and brought fake language. It has been standardized inside the ECMA Script language detail. On board stating and CSS, it's one among the three focus developments of World Wide web content age; the greater part of locales use it and it's maintained by all brilliant web programs however not modules is supported.JavaScript is model based with magnificent limits, making it a multi-perspective language, supporting thing orchestrated, goal, and obliging programming styles. It's accomplice degree API for employable with substance, bunches, dates and standard explanations, yet doesn't get a handle on any I/O, love frameworks organization, accumulating, or structures workplaces, depending for these upon the host setting inside that it's introduced.

In spite of the way that there are various likenesses among JavaScript and Java, similarly as language name, sentence structure, and a couple of other ordinary spot libraries, the two unit obvious tongues and contrast remarkably in their vogue. JavaScript was influenced by programming vernaculars appreciate Self and point. JavaScript is what's increasingly utilized in conditions that are not Web-based , site page express projects, and work territory contraptions. More state-of-the-art and speedier JavaScript virtual machines (VMs) and stages organized upon them have in like manner gathered the reputation of JavaScript. JavaScript has been generally completed accomplice degree taken language, yet progressively current projects perform without a minute to save collection. It's what's progressively utilized in game improvement, the generation of work zone and adaptable applications, and server-side timetable with run-time circumstances love Node.js.

Chapter 2

REVIEW OF LITERATURE AND DEFINITION OF PROBLEM

2.1 Brief Discussion about JavaScript

Applications (NCSA), a unit of the University of Illinois at Urbana-Champaign, free NCSA Mosaic, the essential in vogue graphical program, that fight a critical 0.5 in extending the advancement of the rising World Wide web. In 1994, an organization named as Mosaic Communications was fundamentally arranged in Mountain examine, Golden State and used a critical number of the basic NCSA Mosaic makers to make Mosaic Netscape. In any case, no code is purposely has been conferred to NCSA Mosaic. the internal codename for the association's program was Mozilla, that signified "Mosaic killer", due to the association's goal was to remove NCSA Mosaicas an eventual outcome of the world's favored program. the essential adjustment of the web program, Mosaic Netscape zero.9, was free in late 1994. among four months transformed into the principal program for web inside the Nineties. The program was later on renamed Netscape Navigator inside indistinct year, and furthermore the corporate took the name Netscape Communications to avoid trademark proprietorship issues with the NCSA.

Netscape Communications completed that the web expected to transform into a great deal of dynamic. John Barleycorn Andreessen, the beginning father of the association acknowledged that machine-intelligent substance increment language required a "stick language" that was definitely not hard to use by web originators and low support designers to gather parts similar to photos and modules, where the code could in like manner be formed authentically inside the net page markup. In 1995, the association enrolled Brendan Eich with the goal of embedding the subject etymological correspondence into its Netscape Navigator. Before he may begin, Netscape Communications cooperated with Sun Microsystems to join its a ton of static phonetic correspondence, Java, in Netscape Navigator, to battle with Microsoft for customer gathering of web advancements and stages.

2.2 History of Node .js

Netscape Communications by then set that the scripting language would enhance Java and can have unclear semantic structure, that rejected grasping various vernaculars similar to Perl, Python, TCL, or Scheme. To monitor the possibility of JavaScript against centered proposals, Netscape required an exemplification. Eich stayed in contact with one of like clockwork, in would possibly 1995.

Notwithstanding the way that it totally was made underneath the name Mocha, the language was formally named as Live Script once it basic sent in beta appearances of Netscape Navigator 2.0 in September 1995, anyway it totally was renamed JavaScript once it totally was passed on inside the Netscape Navigator 2.0 beta 3 in Gregorian timetable month. the last word diverse of was an aftereffect of the Java etymological correspondence, and furthermore the choice has been depicted as a corporate insatiability ploy by.

It is a server-side framework which is made upon Google Chrome's JavaScript V8 Engine. Node.js had been made in 2009 by Ryan Dahl and latest variation of Node js is v0.10.36. The official significance of Node is according to the accompanying

Node.js is a structure which depends on chrome's JavaScript Engine for structure basic ,speedy and versatile web applications. Node.js uses various types of models, for instance, an event driven, non-blocking I/O model which makes it lightweight and amazing .It is perfect for data heightened consistent applications which continues running across over appropriated mobile phones.

It is an open source, cross-arrange runtime condition used for making server-side and frameworks organization web applications. Node.js applications are mainly written in JavaScript, and can be continued running inside the Node.js runtime on OS X, Microsoft Windows, and Linux.

Node.js gives an improve library of various JavaScript modules which makes basic progression of web and adaptable applications using Node.js everything considered.

Node.js = Runtime Environment(framework) + JavaScript Library(modules)

2.3 Node.js Features

There are a segment of the critical points that make Node.js outstandingly amazing and the essential choice of programming engineers.

•Event Driven and Asynchronous − All Application Programming Interface(API) of Node.js library are not synchronous, which means it is non-blocking. It infers that a Node.js based server can never holds on for an API for returning data. The server should moves to various API in the wake of calling it and an arrangement of notice of Events of Node.js makes the server get a response/result from the API called as of now.

•Very Fast and Emerging− As it depends on Google Chrome's V8 JavaScript Engine, Node.js library is uncommonly snappy and profitable in execution of code.

•Single Threaded anyway Highly Scalable − Node.js uses a singular hung framework(model) with event circumnavigating. Event instrument makes the server respond profitably in a non-blocking way and makes the server incredibly flexible and versatile that repudiated to servers which are standard and makes confined strings to manage requests. Node.js uses a single hung program and a comparative kind of program which can offer organization to a much goliath number of sales than standard servers like Apache HTTP Server gives.

•No Concept of Buffering − Node.js web and flexible applications doesn't pad any data. These sorts of uses simply yield the data in pieces or edges.

•License Released − Node.js is released under MIT License.

2.4 Users of Node.js

There are no. of excusive affiliation using Node.js framework are according to the accompanying. It consolidates eBay, General Electric, Go Daddy, Microsoft, PayPal, Uber, Wikipins, Yahoo!, and Yammer to and some more.

2.5 Concepts under Node.js
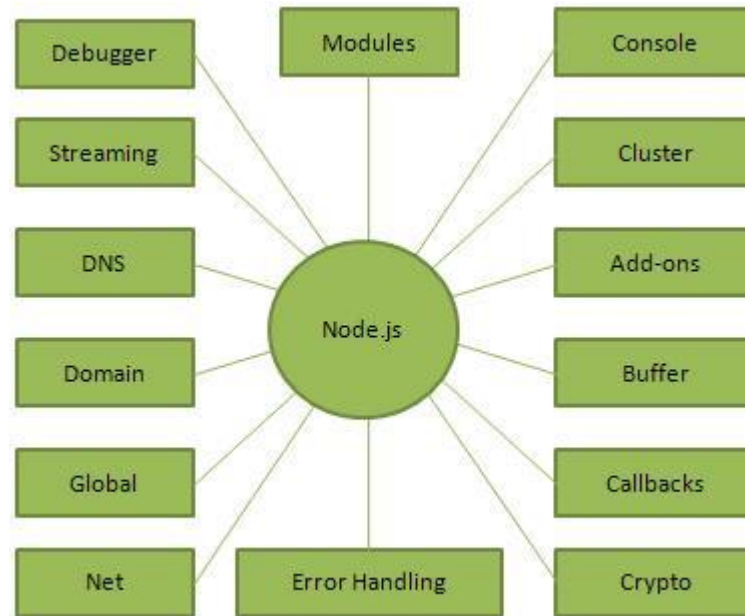
Figure 2.1: Important parts of Node.js

2.6 Uses of Node.js

In today's, there are various JavaScript frameworks/modules are open in the market(like angular.js, node.js), yet simultaneously, React showed up in the market and earned a lot of pervasiveness and recognition among affiliations . The old frameworks as a general rule seeks after the regular movement of data structure, which reliably uses the DOM (Document Object Model). Record Object Model(DOM) is a thing which will made by the web program each time when a website page is stacked. It is dynamically incorporates, alter adjust and delete the data at the back end and when any change or updation were made then each time another DOM article is made for a comparative page. This again and again development of DOM thing makes wastage of memory and consistently reduces the introduction and capability of the application.

2.7 Basics about React.js

Along these lines , another creating advancement ReactJS framework/modules arranged which empty this kind of drawback. ReactJS empowers us to isolate our full application

5

into diiferent sorts of portions or segments . ReactJS still used the old usually stream of data , anyway it isn't clearly taking a shot at the program's Document Object Model (DOM) rapidly; rather, it chips away at a virtual DOM. It suggests instead of modifying the report in a program after changes to our data, it clarifies updation on a DOM amassed and executed totally in memory. After the virtual DOM has been changed , React recognizes whatever changes made to the certified program's DOM. The React Virtual DOM stay remains by and large in memory and it is a depiction of the web program's DOM. Along these lines, at whatever point we make any mindful a React part, we make by suggestion to the DOM; rather, we are making virtual fragments that react will change into the DOM.

2.8 Importance of React.js

React has been comfortable with the world approx. two years earlier, and beginning now and into the not so distant it has seen reasonable progression, both front and back completion of the Facebook. New web experiences at Facebook has been reliably fabricated utilizing React in some structure, and it is everything considered generally gotten a handle on over the business. Architects and specialists are picking React in light of the manner in which that it empowers contributing progressively greater imperativeness to concentrate more on the thing progress and less time has been spent on battling and understanding how to the system.

The blend of React and the quick accentuation cycle of the web, has enabled to make some amazing things including diverse Facebook allotments. A dazzling JavaS-cript structure called Relay has in like manner been made over React, which streamlines ing data helping a tremendous scale.

2.9 Learning Curves

Not under any condition like some other JavaScript libraries where it requires some theory to find a few solutions concerning the structures, in React it doesn't require a lot of a push to begin gathering an application. Respond is contained different solid highlights. Rationality is a champion among other nature of React. This is reasonably essential to the individuals the people who are new to it. but other edge works needs learning different

musings in regards to the structure itself, rejecting the language essentials, React deals with no doubt in the world the opposite. For instance, we ought to think about how exceptional it is in React and Angular JS rendering a bit of a business' outline.

It requires to utilize the request called Repeat. We should recognize a combination of supervisors. Each and every one of them contains the fields: first name, last name and is hitched. Standard objective is to demonstrate just chiefs who are hitched. The going with picture 2 displays a screen catch of an utmost written in Ionic structure.

On the off chance that one is intrigued about with Angular, this code bit may raise some incite issues of what is the $scope and what is the particular language structure here for the channel. In any case, in React, one can utilize the present learning of language essentials. The above worth should be possible utilizing direct and guide works in React. The going with Figure 3 prompts the best way to deal with make the farthest point in React JS.

As appeared in Figure, points of confinement can be written in clear manners veered from other edge works. A few solicitation may in like way rise with respect to what React. Make class does and what render is by the by the remainder of the code is standard JavaScript. This deduces it will be incredibly fundamental and reasonable to the individuals who don't have the foggiest idea about a lot of React.

```
1   <function EmployerCtrl($scope) {
2       $scope.employers = [
3           {
4               first_name: 'Naimul',
5               last_name: 'Naim',
6               is_married: true,
7           },
8           {
9               first_name: 'Karar',
10              last_name: 'Habib',
11              is_married: true,
12          },
13          {
14              first_name: 'Tanmoy',
15              last_name: 'Zadid',
16              is_married: false,
17          }
18      ];
19  }
```

Figure 2.2: Function written in ionic framework

7

As appeared in Figure 2.2, a capacity is composed called Employer Ctrl where it demonstrates some particular data of the businesses.

Picture 3 demonstrates a screen capture of a mandate called Repeat written in Angular JS structure.

```
1  <div ng-controller="EmployerCtrl">
2      <ul>
3          <li ng-repeat="employer in employers | filter:{is_married:true}">
4              {{employer.last_name}}, {{employer.first_name}}
5          </li>
6      </ul>
7  </div>
```

Figure 2.3: Directive written in Angular JS framework.

In the event that one is curious about with Angular, this code bit may bring up some prompt issues of what is the $scope and what is the particular language structure here for the channel.

In any case, in React, one can utilize the current learning of language essentials. The above usefulness should be possible utilizing channel and guide works in React. The accompanying Figure 3 tells the best way to compose the capacity in React JS.

```
1   const DemoComponent = React.createClass({
2       render() {
3           const employers = [
4               {
5                   first_name: 'Naimul',
6                   last_name: 'Naim',
7                   is_married: true,
8               },
9               {
10                  first_name: 'Karar',
11                  last_name: 'Habib',
12                  is_married: true,
13              },
14              {
15                  first_name: 'Tanmoy',
16                  last_name: 'Zadid',
17                  is_online: false,
18              }
19          ];
20
21          return (
22              <View>
23                  {employers
24                      .filter(f => f.is_married)
25                      .map(f => <View>{f.last_name}, {f.first_name}</View>)}
26              </View>
27          );
28      }
29  });
```

Figure 2.4: filter and map function in React JS.

8

As appeared in Figure 4, capacities can be written in simple ways contrasted with other edge works. A couple of inquiries may likewise rise with respect to what React. Create class does and what render is nevertheless the remainder of the code is standard JavaScript. This implies it will be very simple and reasonable to the individuals who don't know quite a bit of React.

2.10 React is Very Fast and Agile

React JS is highlighted with single heading information stream between the states and layers in an application. This derives information streams single course between the application states and layers. In two-manner information limiting like Angular, if a model is changed, the view likewise changes and the an alternate way..

2.11 React Leads JSX

It is a language that enables us to choose the DOM sections before the parts direct inside JavaScript chronicles. This proposes the strategy for thinking behind the parts and the visuals are in all cases place. This is such a sensational thought when different structures are tolerating lines to arrange it.

2.12 Large Community Development

Monster affiliations like New York Times, Facebook, and Netflix are utilizing React no ifs, ands or buts. They are energetically adding to build up the React center and building stupefying untouchable libraries that work unprecedented with any React programming.

Chapter 3

MATERIALS AND METHODS

3.1 React Core Architecture

DOM addresses Document Object Model. DOM control is basic for current sharp web advancements. It is reliably called the focal point of the pushed web. It is an impression of the dealt with substance. By the by, it works more deferred than other JavaScript operations in light of the way that most JavaScript structures if all else fails update the DOM paying little personality to whether they don't have to do it. That recommends those updates are less required to play out the activities at any rate despite all that they do as a have any kind of effect clearly.

For instance, le we consider expect there are around nine things which have been set up in a shopping bushel in an online web/application store. Direct let us state just the basic concern is required to purchase and keep on checkout. Here, most advances would re-endeavor the whole outline that has been set for the situation. This incites the structure needs to unneces-sarily handle different events more. In light of just one change the structure needs to reproduce the outline absolutely how it was by at that point.

Respond didn't make Virtual DOM yet uses and offers it to the coordinator main impetus to no end. Virtual Dom is basically an impression of HTML DOM. Respond has a relate ing virtual DOM object for each DOM thing like a maker or a lightweight duplicate. Virtual DOM is in like way illustrated with inside and out that truly issues obscure properties to a veritable DOM. Everything thought of it as, can't uncover any updates genuinely to the view. DOM control is a huge moderate star cess. Regardless, controlling Virtual DOM is snappier in light of the manner by which that it has nothing to do with the view part and doesn't uncover any trips to the screen. Figure 4, republished from stacko-verflow.com, is an arrangement of Virtual DOM in the memory.

Respond didn't make Virtual DOM yet uses and offers it to the modeler virtuoso to no end. Virtual Dom is basically an impression of HTML DOM. Respond has a relate ing virtual DOM object for each DOM thing like a maker or a lightweight duplicate. Virtual DOM is

in like way laid out with all around that truly matters unclear properties to a legitimate DOM. Adventitiously, it can't uncover any updates truly to the view. DOM control is a titanic moderate star cess. Regardless, controlling Virtual DOM is snappier in light of the manner by which that it has nothing to do with the view part and doesn't uncover any trips to the screen. Figure 4, republished from stacko-verflow.com, is an arrangement of Virtual DOM in the memory.

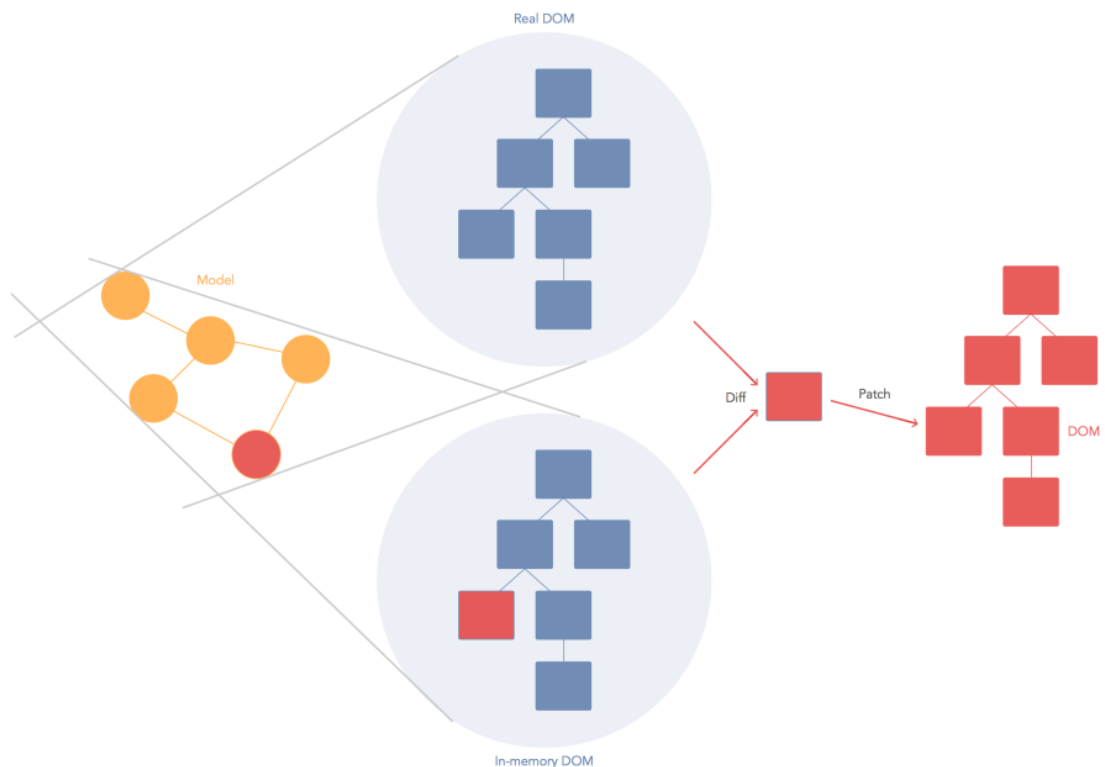Figure 3.1: React virtual Dom in memory.

React Virtual DOM Advantages and Disadvantages

- The diffing estimations which will written in React is snappy and convincing.
- It urges us to manufacture various frontends for a comparative application.
- It is light weighted and ability to be continued running in every PDAs.
- we can do a lot of pulling powers.
- It go about as a self-ruling engine .

Disadvantages of React are as follows.

- It takes a huge amount of memory space.
- Static and dynamic parts doesn't bring a great deal of a differentiation.

3.2 Server Introduction

MySQL is the most well known Open Source Relational SQL Database

Management System.). It is a structured query language. MySQL is outstanding amongst other RDBMS being utilized for creating different online programming applications. MySQL is produced, showcased and upheld by MySQL AB, which is a Swedish organization. This instructional exercise will give you a fast begin to MySQL and make you OK with MySQL programming.

A database may be a collection of connected information organized in an exceedingly method that information is simply accessed, managed and updated. Any piece of data is information, as an example name of expert. Database is actually an area wherever connected piece of information is hold on and varied operations are performed on it. This is a free software, simple to use and has fast downloaded.

MySQL is a central component of all the open source application software like LAMP, WAMP, XAMPP. Applications like Joomla, PHP, WordPress uses MySQL for database management. We can simply query a database for specific information and have a record set returned. In PHP to connect Database with it we use "mysql-connect()" function.

Syntax to connect database in PHP: -

mysql-connect(Server name, username, password);

It is written in C, C++ programming language, it's SQL parser is written in YACC, while it uses a home-browsed lexical analyzer.

We can create, delete and update database using MySQL using the "mysql-query" function. PHP provides "mysql_select_db" function to select a particular database.

Features:

• It supports cross-platform.

• Triggers.

• It provides facility of updatable views.

• It has an information schema.

• It contains Query caching.

• It has embedded database library.

• It consists of multiple storage engines.

3.3 Node Package Manager

Node Package Manager has two main important features are as follows-

- Online archives for node.js bundles/modules which are accessible on search.nodejs.org
- It is beneficial for Command line utilization to install Node.js modules , it also manages the version and do management of all dependencies of Node.js modules.

NPM comes packaged with Node.js installables after v0.6.3 variant. To confirm the equivalent, open console and following commands are used and see the result

$npm—version

2.7.1

If we are using an older version of Node Package Manager then it is quite easy to upgrade in to newer version. We will use the following command from the root-

$ sudo npm install npm –g

User/bin/npm ->user/library/node_Modules/npm/bin/npm-cli.js

npm@2.7.1/user/libraries/node_modules/npm

3.3.1 Installation of Modules using NPM

It is very easy and simple syntax to install any Node.js package −

$ npm install<Module Name>

The command which we will use to install very popular Node.js module or framework

$ npm install express

To use express module in our .js file following syntax is used:-

var express=require('express')

3.3.2 Difference between Global and Local Installation

Firstly by default, NodePackageManager installs all types of dependency in the local mode. It means the node package modules directory present in the folder where all node programs are present. Locally installed packages can be accessed using require() method. Let us take an example, whenever we will install express package, it always kept node_modules directory in the directory where it has installed the express module/packages.

$ ls -1
total 0
drwxr-xr-x 3 root root 20 Mar 17 02:23 node_modules

Next, to see the all locally installed module we will use the following command

Npm ls

The packages or dependencies which we will install globally are present in system's directory. These all packages we can used in CLI (Command Line Interface) function of any node.js application but we cannot accesss it directly in the node.js application using require method.

To install express module globally we will use the following syntax-

$ npm install express –g

3.3.3 Using package.json

Package.json is present in the folder of node package or module application which is used to define the attributes of a package:

3.3.4 Properties of Package.json

- It portrays the name of the pack.
- It gives depiction about pack adjustment.
- It gives pack depiction.
- It gives information about pack point of arrival.
- It depicts about maker of the pack.
- It gives name of pack providers.
- It gives information about kind of storage facility and pack URL.
- It gives information about essential segment of the pack.

3.3.5 Attributes of Package.json

• name − name of the pack

• version − type of the pack

• description − depiction of the pack

• homepage − point of arrival of the pack

• author − maker of the pack

• contributors − name of the supporters of the pack

• dependencies − once-over of conditions. NPM normally presents all of the conditions   referenced here in the node_module coordinator of the pack.

• repository − storage facility type and URL of the group

• main − segment reason for the pack

keywords – catchphrases

3.4 Overview of Express

Express is an irrelevant and adaptable Node.js web application structure that gives an astounding course of action of highlights to make web and advantageous applications. It invigorates the smart movement of Node based Web applications. Following are a section of within highlights of Express system −

• Allows to set up middlewares to react to HTTP Requests.

• Defines a controlling table which is utilized to perform various activities subject to HTTP Method and URL.

• Allows to successfully render HTML Pages subject to passing debates to layouts.Installing Express

Immediately we will present the Express models all around with the help of Node Package Manager accordingly it might be used to make web/versatile center point applications.

$ npm present express - save

The above after semantic structure will present the center modules locally list and will save the vault express under the node_modules. Some importamt modules which we ought to present close by express module.

• body-parser – It is a node.js middleware for administering and presenting JSON, Raw, Text and URL encoded structure data.

• cookie-parser − Parse Cookie header and populate req.cookies with a thing keyed by the treat names.

•multer − This is a node.js middleware for dealing with multipart/structure data.

$ npm present body-parser - save

$ npm present treat parser - save

$ npm present multer - save

Sales Object and Response Object

Express application and program will uses a callback work whose conflicts/parameters are sales article and response objects.

app.get('/', work (req, res) {

/ -

})

• Request − This sales article exhibits the HTTP request and has characteristics for the sales request string ,disputes ,body ,HTTP Header, etc.

• Response – This response article demonstrates the HTTP response with the objective that an Express applications/program response the requesting when it gets a HTTP request.

You can create req and res objects which gives monstrous information about HTTP sales and response including treats, sessions, URL, etc.

3.5 Creation of React Component

A React component is made with the help of Java Script Framework. This methods accept props and will return a React component. They are also known as functional components. ES6 class can be used to define components.

Function Home(props){

return<h1>Hello ,Welcome to our World {props.name}</h1>;

}

We can also write React component with the help of Java Script functions.To inherit ,derive or extend any component from base or parent component is also a way to create a component.

class Example extends React.Components { Parent Component

render() {

return(

<div><h1>Food</h1>

 // Food list

Pizza

17

```
<li>Burger</li>
<li>French Fries</li>
<li>Soya Chaap</li>
<li>Sweet Corn</li>
<li>Chocolate Shake</li>
<li>Cheese Sandwich</li>
<li>Chilli Potato</li>
<li>Pasta</li>
<li>Macroni</li>
</ol>
</div>
)
}
}
```

We also call Functional Component stateless. Rendering each and every component makes the user interface very attracting and very efficiently.

3.6 Testing

Testing is the procedure completed on programming to identify the contrasts between its conduct and the coveted conduct as stipulated by the prerequisites particulars. Testing is beneficial in a few ways. Initially, the imperfections discovered help in the procedure of making the product dependable. Also, regardless of the possibility that the imperfections found are most certainly not revised, testing gives a thought as to how solid the product seems to be. Thirdly, after some time, the record of deformities discovered uncovers the most widely recognized sorts of imperfections, which can be utilized for creating fitting preventive measures, for example, preparing, appropriate outline and surveying.

Testing is also performed on the live users face as soon as the user comes in-front of the app opened in the mobile , it automatically detects the users facial expression and proceeds further according to it.

3.7 Testing Plan

The testing sub-process includes the following activities in a phase dependent manner:

- Create Test Plans.
- Create Test Specifications.
- Review Test Plans and Test Specifications.
- Conduct tests according to the Test Specifications, and log the defects.
- Fix defects, if any.
- When defects are fixed continue from activity.

3.8 Testing Strategy

The advancement procedure rehashes this testing sub-process various circumstances for the accompanying stages.

• Unit Testing.

• Integration Testing

• System Testing.

Acceptance Testing.

Unit Testing tests a unit of code (module or program) in the wake of coding of that unit is finished. Incorporation Testing tests whether the different projects that make up a framework,interface with each different as wanted, fit together and whether the interfaces between theprograms are right. Framework Testing guarantees that the framework meets its expressed outline determinations. Acknowledgment Testing will be trying by the clients to discover whether the framework created is a right usage of the Software Requirements Specification. Testing is done in such a progressive way to guarantee that every part is right and the get together/mix of parts is right. Simply testing awhole system at the end would most likely throw up errors in components that would be very costly to trace and fix.

3.9 Testing Methods

In black box testing a software item is viewed as a black box, without knowledge of its internal structure or behavior. Possible input conditions, based on the specifications(and possible sequences of input conditions), are presented as test cases.In white-box testing information of inward structure and rationale is misused. Test cases are exhibited with the end goal that conceivable ways of control move through the product thing are followed. Thus a bigger number of deformities than discovery testing are probably going to be found.The disadvantages are that exhaustive path testing is infeasible and the logic might not conform to specification. Instrumentation techniques can be used to determine the structural system coverage in white box testing. For this purpose tools or compilers that can insert test probes into the programs can be used

3.10   Introduction to React Native

React Native is build by Facebook for the web and mobile application development for both of Android and IOS.It is also used to bulid cross platforms for mobile and web application with the help of Java Script. It will use the same style as React .js will use.React.js help us to build enrich user interface elemets or components from declarative components which gives better user application experience.

3.11 User of React Native

A huge number of application developers are using React Native for their productions. The companies comes under Fortune 500 and Startups which are new to our society are also using the React Native for their developments. The below picture shows the companies and application are using React Native.
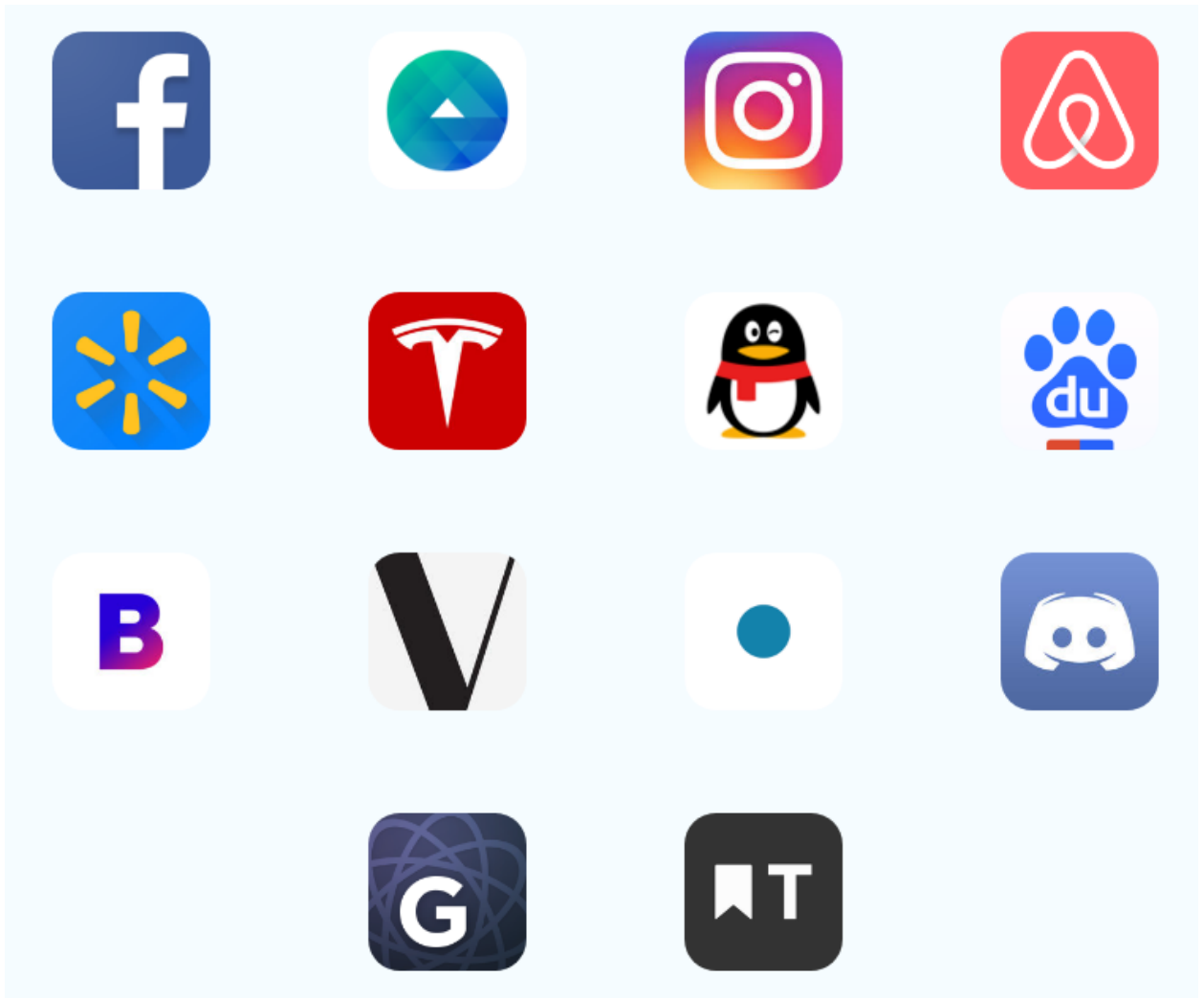
Figure 3.2: Apps using React Native

3.12 Growth and Popularity of React in the Market

There are countless affiliations , news, travel, social correspondence relationship in the USA, the UK, Asia, France, Germany, Canada and different various nations are utilizing both React and Angular JS. Running js is discernible and unquestionably comprehended among different web and versatile application draftsmen and programming engineers which is done system which has MVC(Model View Controller) and React is a library it's certainly not a structure it has basically observe while it doesn't have model and controller.

Download the most recent variant of the Node.js installable establishment record. at Node.js. downloads At the hour of this composition, coming up next are the renditions accessible on various working frameworks.

Windows establishment

Utilize the MSI record and adhere to the guidelines to introduce Node.js. Of course, the installer utilizes the Node.js dispersion in C: Programs idjs. The installer must set the C: Programs node.exe index in the Windows PATH condition variable. Restart all open order solicitations to roll out the improvement powerful.

Confirm establishment: run a record

Make a js document called main.js on your PC (Windows or Linux) with the accompanying code.

FIRST APPLICATION

Before making a "Welcome world!" application that utilizations Node.js, we should investigate the parts of a Node.js. A Node.js application comprises of the accompanying three significant parts:

- Import of the necessary modules: we utilize the solicitation mandate to stack Node.js.
- Make server: a server that will deal with customer demands like the Apache HTTP server.
- Understand solicitation and reaction: the server made at a previous stage will peruse the HTTP solicitation made by the customer, which can be a program or a reassure, and return the reaction.

Express Summary

Express is a negligible and adaptable Node.js web application structure. which offers a dependable arrangement of usefulness for web and portable application improvement. Encourages fast advancement of Node dependent on

Web applications. Here are a portion of the key highlights of the Express Framework:

Arrange middleware to react to HTTP demands.

Characterizes a directing table used to perform different activities dependent on the HTTP and e strategies.

URL

Permits dynamic rendering of HTML pages dependent on passing contentions to layouts.

Express establishment

In the first place, introduce the Express system all around utilizing npm so it tends to be utilized to make networks application utilizing the hub terminal.

$ npm introduce express - spare

The past order spares the establishment locally to the node_modules registry and makes a catalog.

Express in node_modules: There are the accompanying significant modules that must be introduced together with express:

body-parser: This is a node.js middleware for overseeing JSON, Raw, Text, and URL encoding.

information structure

treat parser: parses the treat header and orders req.cookies with an item composed by

treat names

multer: This is a node.js middleware for overseeing multipart/structure information.

Chapter 4

RESULTS AND DISCUSSIONS

In this section I will briefly discuss about my technology and project which I have made. The main objective of learning Node.js and React.js is as it is very emerging and popular technology which help us to develop web and mobile applications very efficiently and effectively.

It is also very easy to learn as styling does not require any explicit programming we will do it by downloading the code from @material –ui/core. The goal of making the project in React is to examine its feature ,what it offers clearly and core architecture behind it, how I is different from other frameworks ,how it handles the processing of data and other functionalities.

My project is digital media hub it is just like a hotstar application in which we have made two interfaces user and admin and admin will upload videos and entertainment media on it and it will be access by the user very easily. There is also purchasable items like to purchase any web series or movie and for paying bill payment gateway has been created and to confirm order and for order details we also connected this app to our g mail account.

For connecting it to database we have made routing connection with the help of Node.js and for designing purpose we have used React.js. Designing or styling part has done very easily with help of predefined CSS code.

All through the investigation, it was found that ReactJS is a less puzzled library com-pared to various frameworks. It is an outstandingly brisk rendering library and facilitated being created. Learning and acing React is less repetitive stood out from others since it is only a library, not a framework. Frameworks as a rule put aside an increasingly attracted out exertion to consider them and become acquainted with the wordings.

Moreover, the essential thought driving React is parts. Everything showed up in the front-end is just parts. The UI is an aggregation of parts. Making changes in a solitary part doesn't impact various fragments.
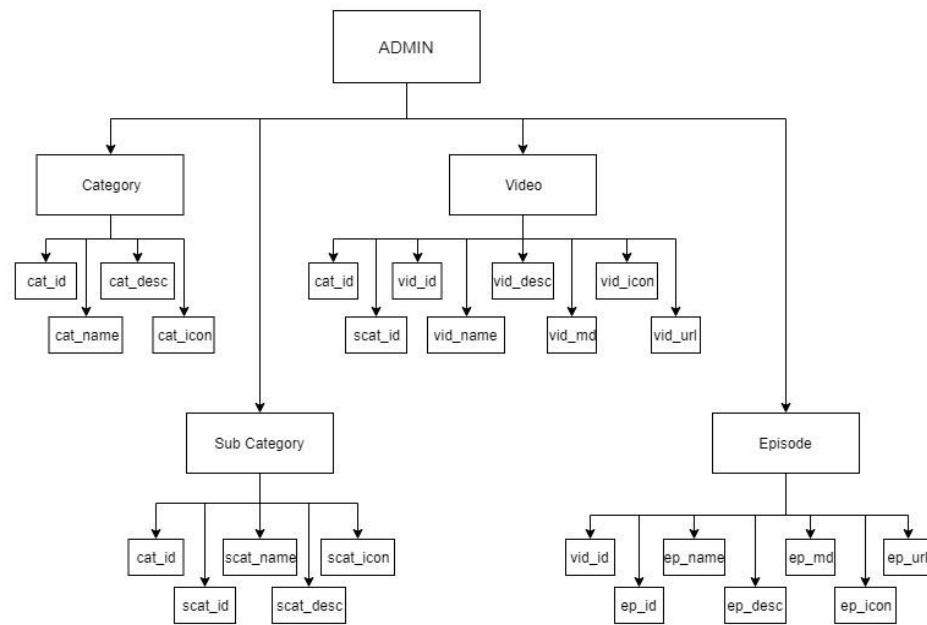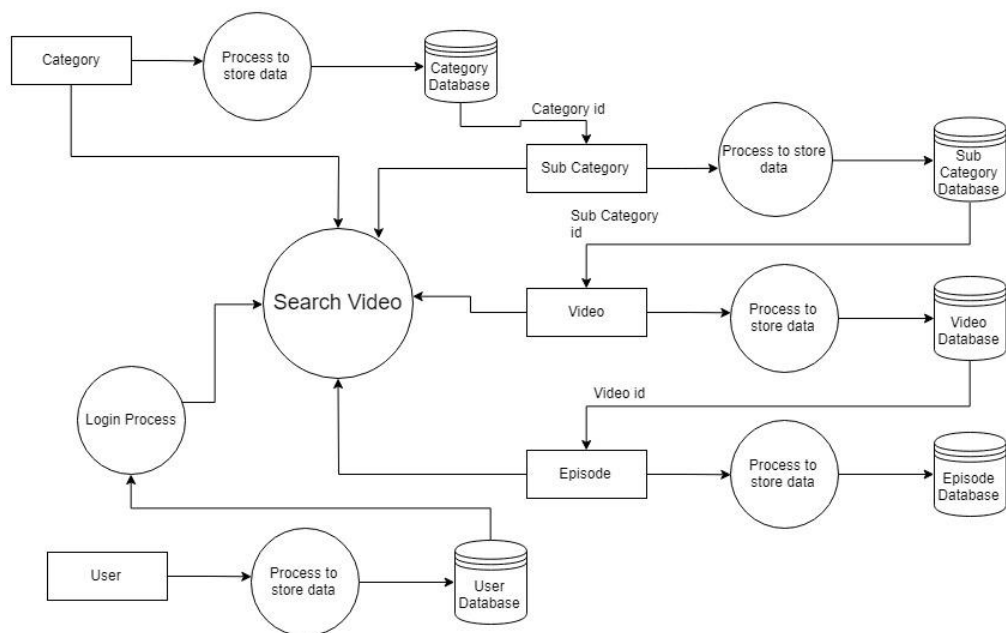
Figure 4.1: Description about Admin Interface

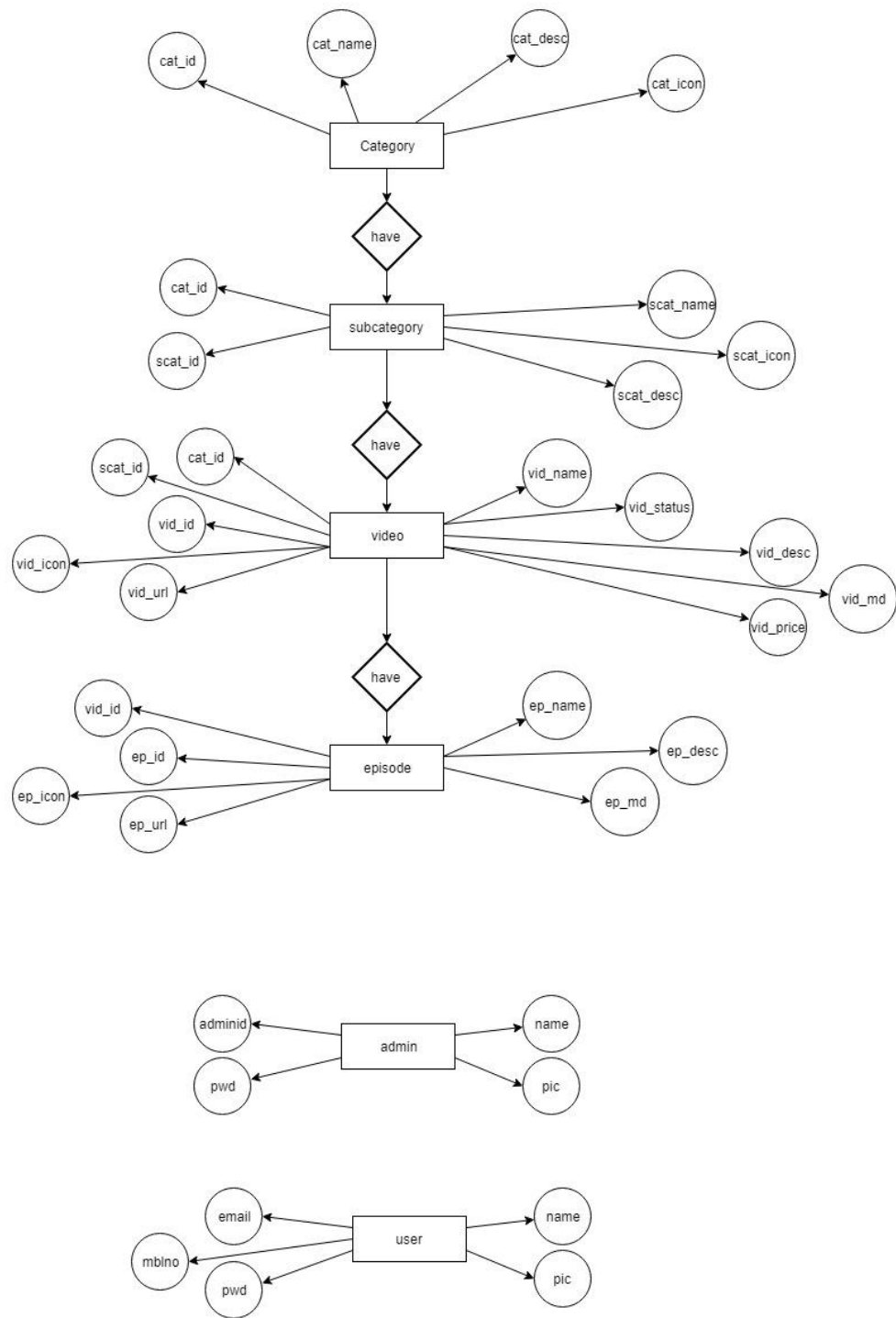Figure 4.2: Process of Searching a Video

Figure 4.3: Components of category ,video ,episode, admin and user

Chapter 5

CONCLUSION

The objective of this research work was to study and survey open source front end library based on java script called React.js. Facebook has developed React js for the sake of his own purpose for developing web applications. Since the start, React js has gained a lot of popularity and fame because of it flexibility in large organizations and technical industry .

Finally, it might be said that ReactJS is a noteworthy advancement to be academic and irrefutably worth considering for application in progress. It has gotten another estimation the web application improvement. The fast rendering library revives the application efficiency and it will in general be seen that React has a splendid future ahead and learning React merits the effort.

Chapter 6

SUMMARY

ReactJS is a JavaScript library created by Facebook. It is utilized for structure reusable UI parts. Respond JS official documentation characterized it as pursues:

Respond is a library for structure composable UIs, it underpins and energizes the formation of reusable UI segments, which presents information that changes after some time by utilizing definitive sentence structure.

Respond is utilized by most engineers as the "V" some portion of the MVC design. Respond abstracts away the DOM from you, offering a less difficult programming model and off kilter better involvement.

One of the selling purposes of React is that it can likewise render on the server utilizing Node. It can control local applications utilizing its system called React Native. It executes single direction receptive information stream, which decreases the standard making its understanding simpler than conventional information official.

It utilizes an idea called Virtual Dom, that specifically renders subtrees of hubs upon state changes. It does minimal measure of DOM control conceivable so as to stay up with the latest.

Chapter 7
BIBLIOGRAPHY

[1].Asimov, ISSAC.(2016,March22).Node Report. Retrieved from http://www.pratikbutani. com/2016

[2].Christie,Agatha.(2007,February19).React Architecture. Retrieved from http://www.tutorialspoint.com/React

[3].Dobbs, Sarah. (2008, February 1). Node Report Alignment and Orientation. Retrieved from https://www.slideshare.net/

[4].King Stephen (2008, December 16). React Fragment and Graphics. Retrieved from https:// www.openhandsetalliance.com/React_overview.html

[5].Koontz Dean(2010 ,March 19). Project Coding Fragments. Retrieved from https://www.androidhive.info/tag/fragments/

[6].Lewis,C.S.(2015,December20).Performance of App. Retrieved from https:// android/9781491913994/ch03.html

[7].Matheson, Richard. (2014, April 18). Mobile App Design. Retrieved from https://www.noupe.com/imho/the-importance-creative-design-for-mobile-app-user-experience.html

[8]. Rice Anne. (2013,March 25). UI and UX design. Retrieved from http://colure.co/the-importance-of-ux-and-ui-in-mobile-app-design/

[9]. Cohen Ryan (2013). GUI Design for React Application

[10]. Darwin, Ian(2017). Android Cookbook -Problems and Solutions for Node and React Developers