



**DATABASE MANAGEMENT SYSTEM PROJECT – REPORT**  
**TOPIC: *Wanderlust – Travel Management***



**TEAM DETAILS**

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## DEPENDENCIES :

(Q) Write a paragraph suggesting the dependencies installed for the database connectivity( front end to back end)

### TECH STACK USED FOR THE FRONTEND AND BACKEND :

- HTML5
- CSS3
- VANILLA JS
- BOOTSTRAP 5
- PHPMYADMIN
- XAMPP

### TO USE THEM WE REQUIRE:

- **A text editor**, to write code in. This could be a text editor (e.g. Visual Studio Code, Notepad++, Sublime Text, Atom, GNU Emacs, or VIM), or a hybrid editor (e.g. Dreamweaver or WebStorm). \.
- **Web browsers**, to test code in. Currently, the most-used browsers are Firefox, Chrome, Opera, Safari, Internet Explorer and Microsoft Edge.
- **A graphics editor**, like GIMP, Figma, Paint.NET, Photoshop, Sketch or XD, to make images or graphics for your web pages.
- **A version control system**, to manage files on servers, collaborate on a project with a team, share code and assets and avoid editing conflicts. Right now, Git is the most popular version control system along with the GitHub or GitLab hosting service.

### TO INSTALL BOOTSTRAP 5:

#### 1) INSTALL WITH BROWSER

```
bower install bootstrap
```

#### 2) INSTALL WITH NPM

```
npm install bootstrap@3
```

#### 3) INSTALL WITH COMPOSER

```
composer require twbs/bootstrap
```

## **XAMPP INSTALLATION :**

### **STEP1-**

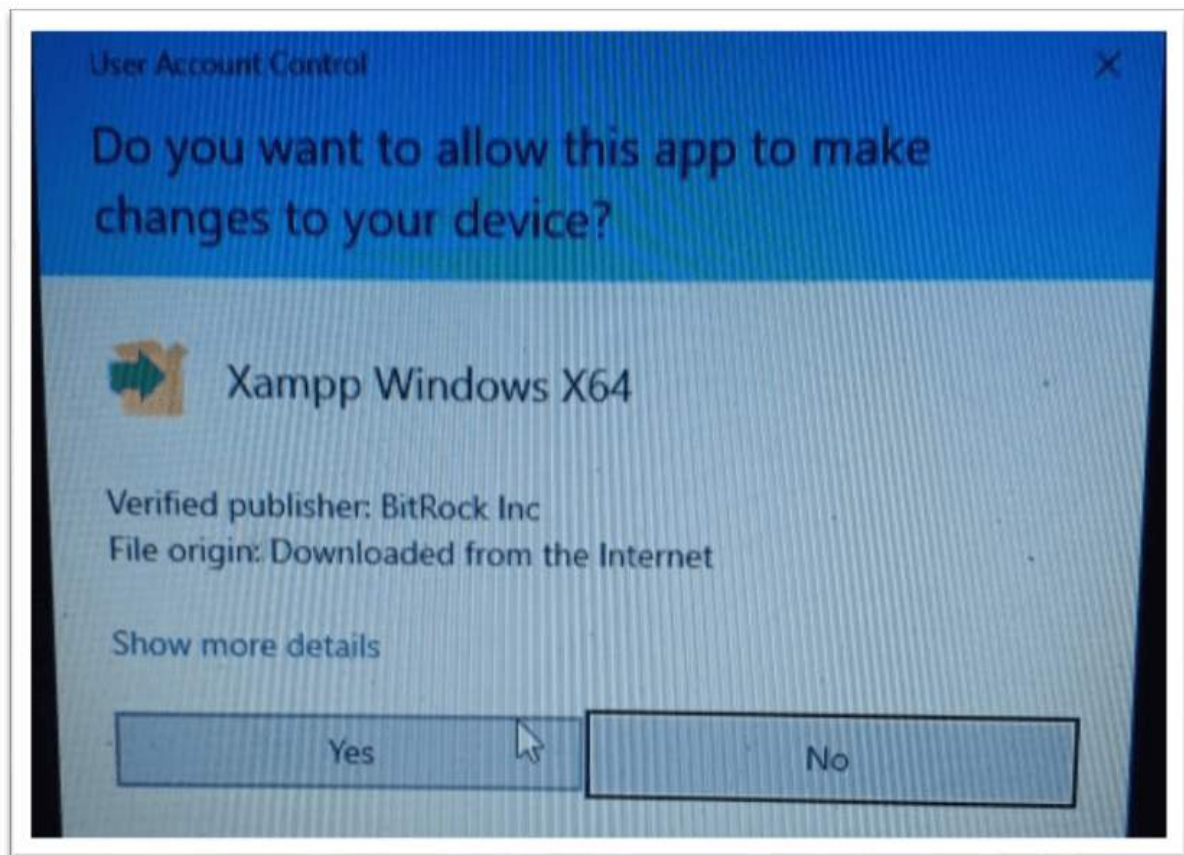
Open any web browser visit <https://www.apachefriends.org/index.html>. On the home page, you can find the option to download XAMPP for three platforms- Windows, MAC, and Linux. Click on **XAMPP for Windows**. The latest version available on the website is **7.4.5**. As soon as you click on it, a message displaying the automatic start of download appears on the screen.



**STEP 2-** After the download is completed, double click the .exe extension file to start the process of installation.

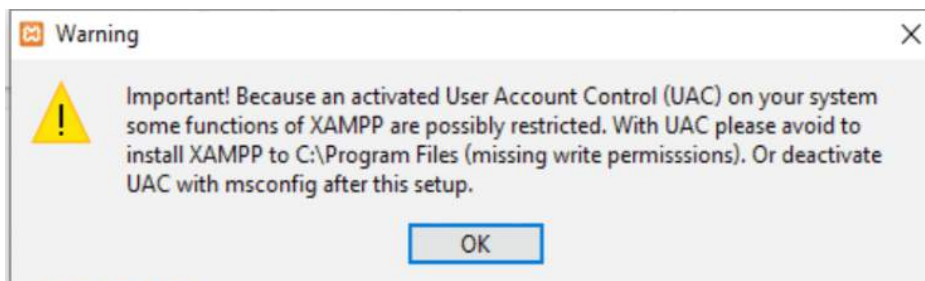


**STEP 3-** A pop-up screen with the message asking you to allow to make changes on your desktop appears. Click "YES" to continue the process.

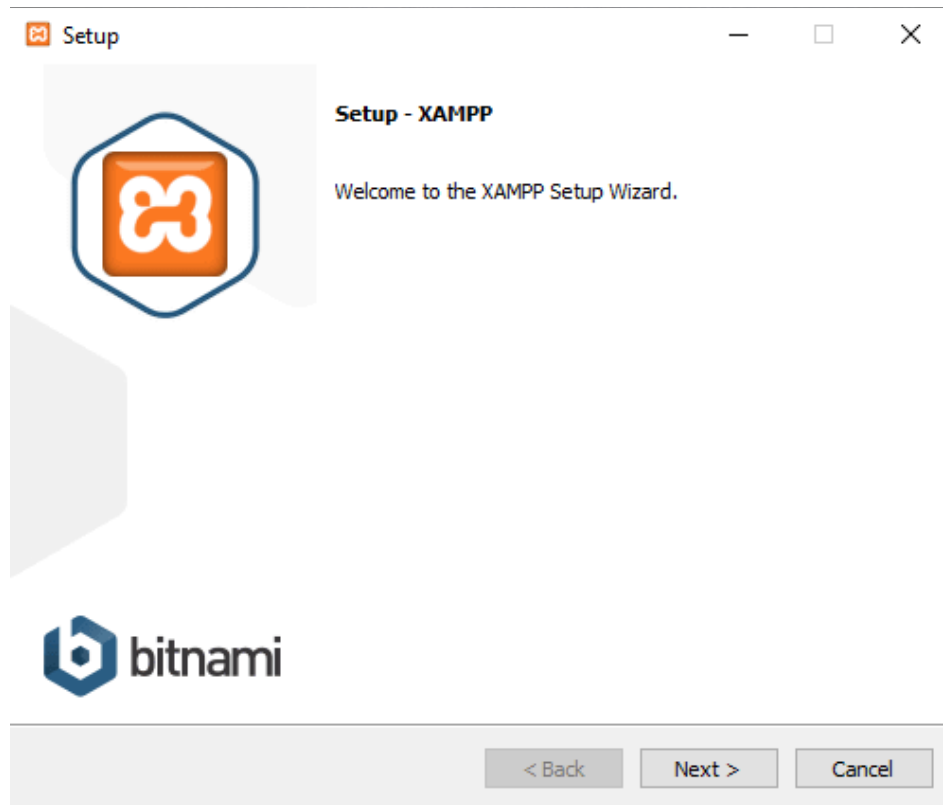


**STEP 4-** Click to **Allow access** or deactivate the firewall and any other antivirus software because it can hamper the process of installation. Thus, it is required to temporarily disable any antivirus software or security firewall till the time all the XAMPP components have been installed completely.

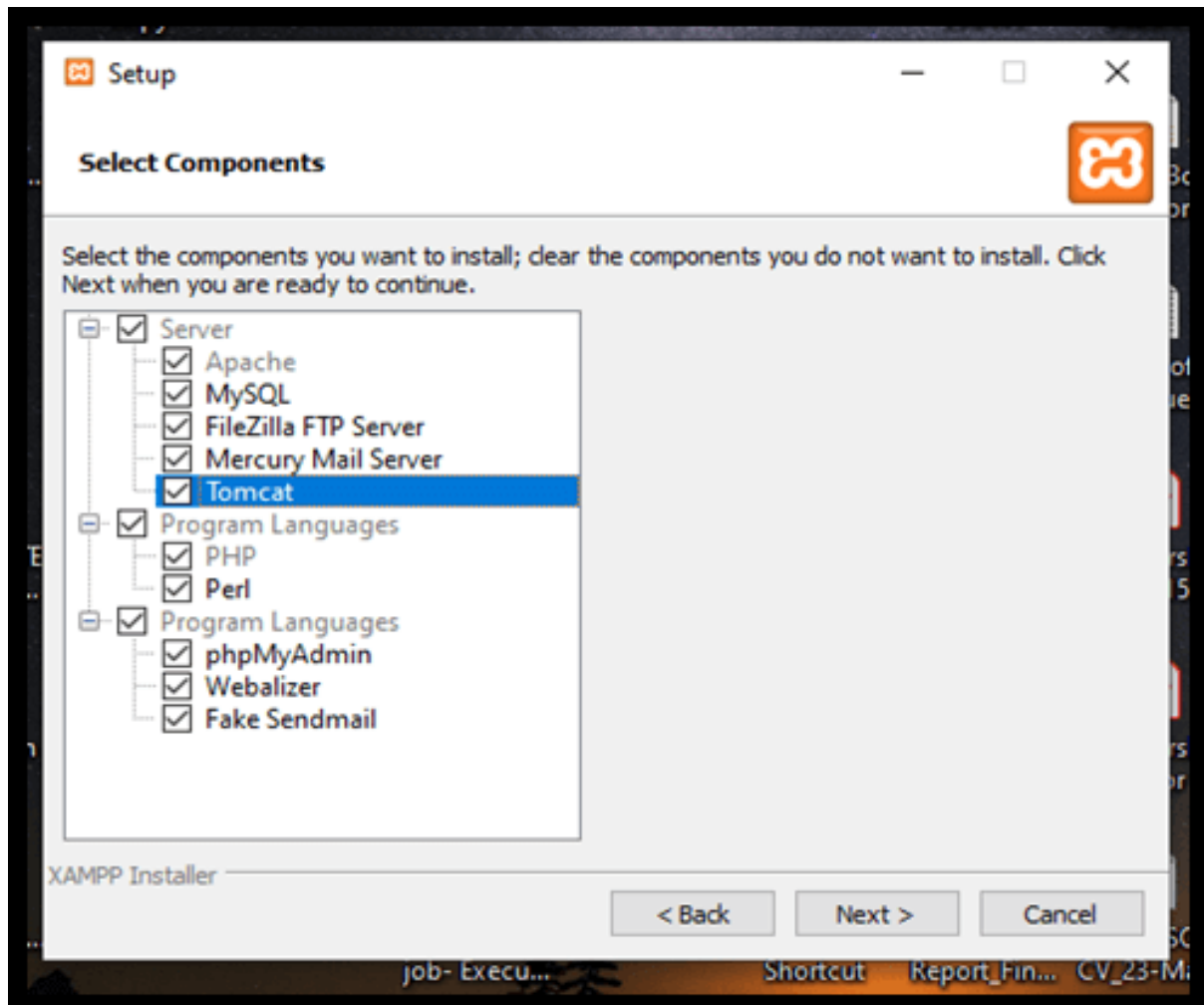
**STEP 5-** Just before the installation, a pop-up window appears with a warning to **disable UAC**. User Account Control (UAC) interrupts the XAMPP installation because it restricts the access to write to the C: drive. Therefore, it is suggested to disable it for the period of installation.



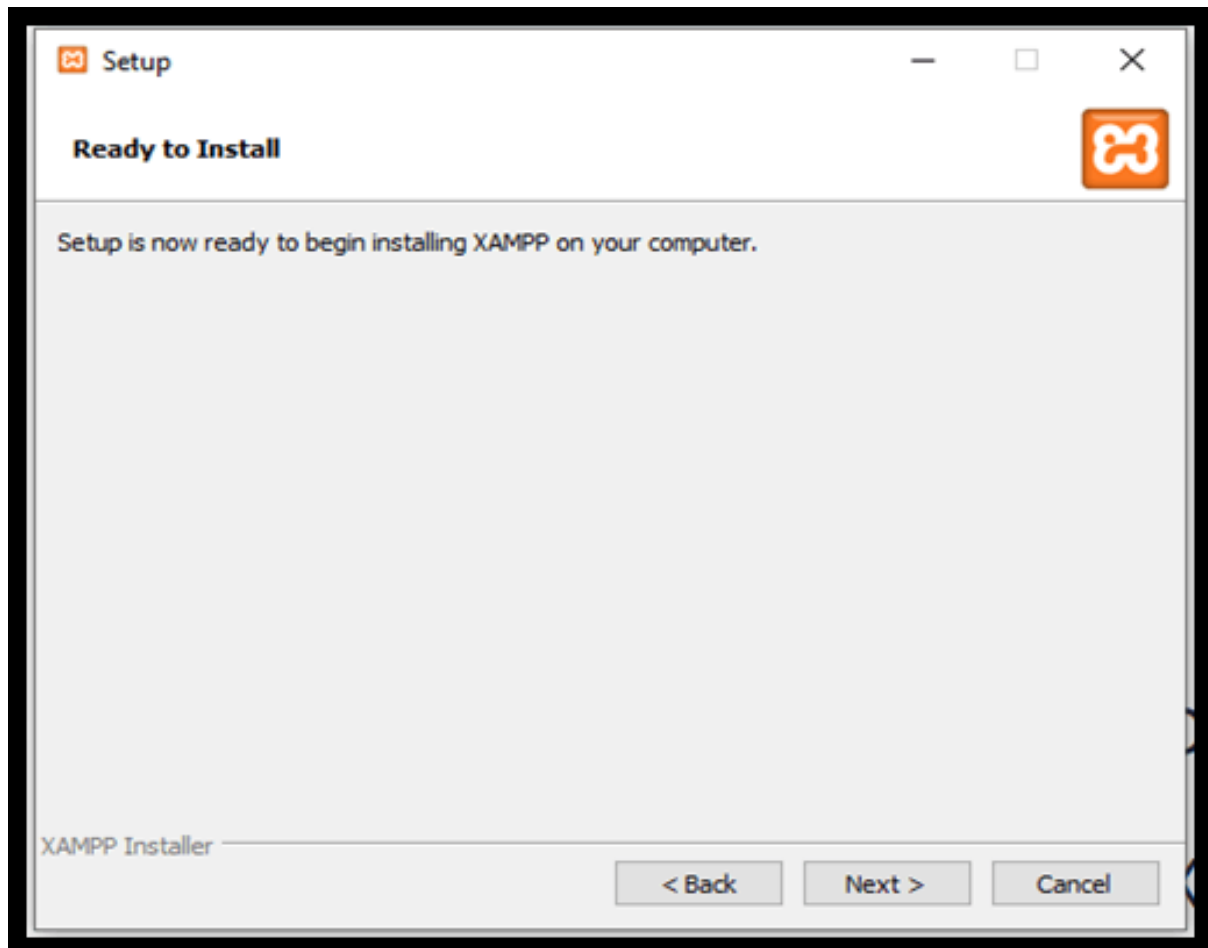
**STEP 6-** After clicking the .exe extension file, the XAMPP setup wizard opens spontaneously. Click on "NEXT" to start the configuration of the settings.



**STEP 7-** After that, a 'Select Components' panel appears, which gives you the liberty to choose amongst the separate components of the XAMPP software stack for the installation. To get a complete localhost server, it is recommended to install using the default options of containing all available components. Click "NEXT" to proceed further.

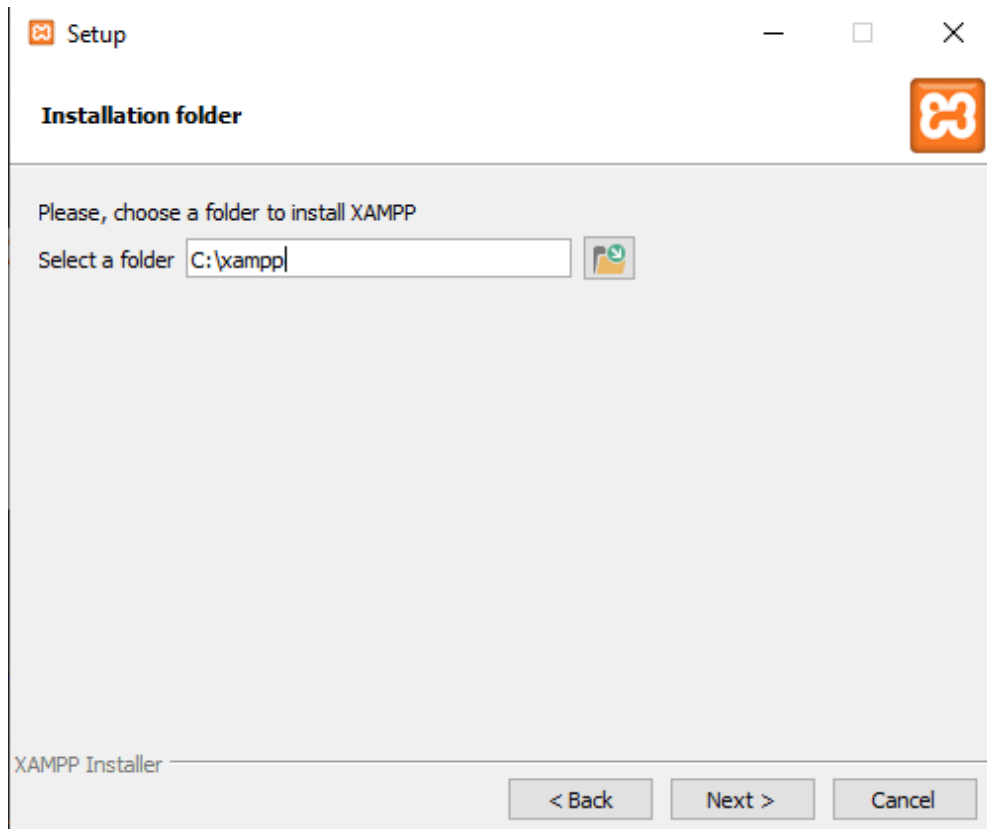


**STEP 8-** The setup is now ready to install, and a pop-up window showing the same appears on the screen. Click "NEXT" to take the process forward.



**STEP 9-** Select the location where the XAMPP software packet needs to be installed. The original setup creates a folder titled XAMPP under C:\ for you. After choosing a location, click "NEXT".

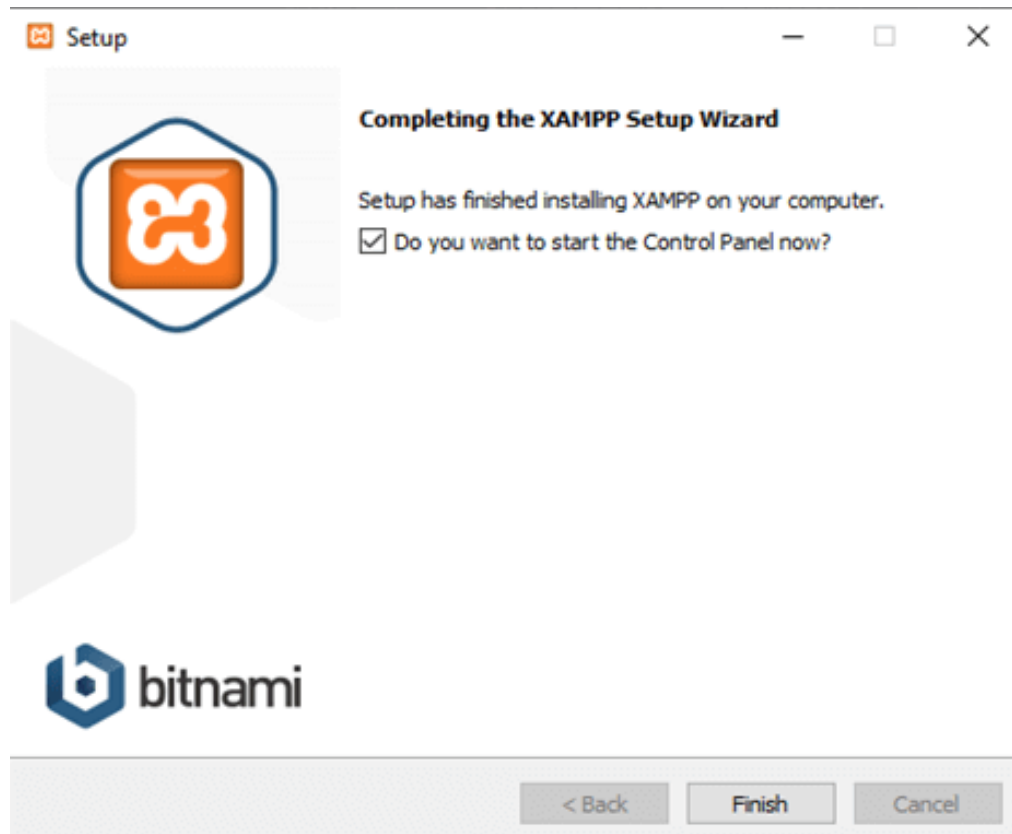




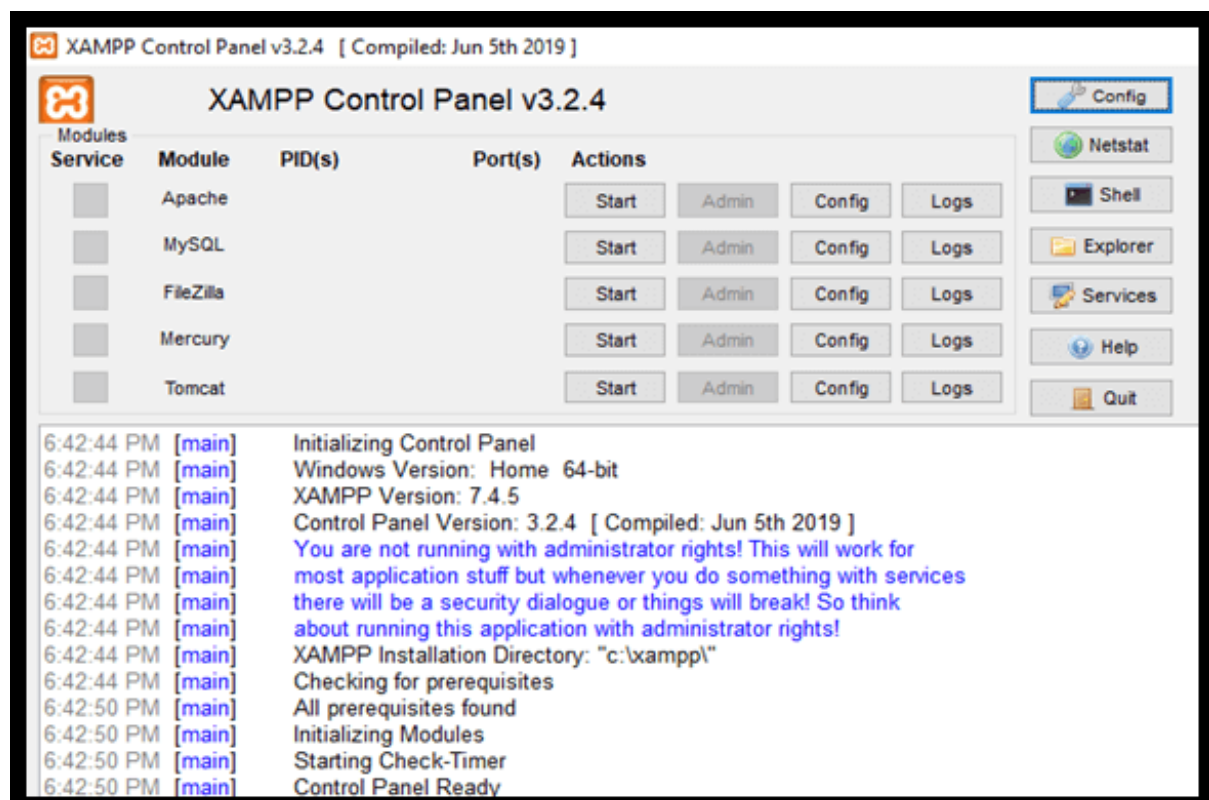
**STEP 10-** After choosing from all the previously mentioned preferences (like language and learn more bitnami dialogue box) click to start the installation. The setup wizard will unpack and install the components to your system. The components are saved to the assigned directory. This process may takes a few minutes to complete. The progress of the installation in terms of percentage is visible on the screen.



**STEP 11-** After the successful installation of the XAMPP setup on your desktop, press the "FINISH" button.



On clicking the FINISH button, the software automatically launches, and the CONTROL PANEL is visible. The image below shows the appearance of the final result.




## FRONTEND DEVELOPMENT : (MAIN PAGE)



BUS DETAILS PAGE :

[Go Back To Home Page](#)



**Bus Details**  
Please enter the details!


**BUS NO:**

**BODY NO:**

**ROUTE NAME:**

AGENT DETAILS PAGE :

[Go Back To Home Page](#)



**Agent Details**  
Please enter the details!


**Agent Name:**

**Agent Address:**

**Agent Number:**

PASSENGER DETAILS PAGE :

Go Back To Home Page



Passenger Details  
Please enter the details!

Passenger No:

Passenger Name:


Passenger Mobile:

Passenger Addr:

Bus Number:

GOVERNMENT DETAILS PAGE :

Go Back To Home Page



Government  
Department Details  
Please enter the details!


Dept Name:

Owner Number:

Tax Number

## OWNER DETAILS :

Go Back To Home Page



**Owner Details**  
Please enter the details!

**Owner Number:**

**Owner Name:**

**Owner Mobile:**

**Owner Addr:**

**Bus Number:**

[Submit](#)

## DISPLAYING BUS DETAILS :

**The Bus Details Are As Follows**

Bus No	Body No	Route Name	Update	Remove
AZ51MX2090	B105	ARZ-LVS	<a href="#">Edit</a>	<a href="#">Delete</a>
AZ51MX2091	B110	BLR-RAJ	<a href="#">Edit</a>	<a href="#">Delete</a>
AZ51MX2095	B113	DEL-MUM	<a href="#">Edit</a>	<a href="#">Delete</a>
HR51MX3050	B106	KLN-KUK	<a href="#">Edit</a>	<a href="#">Delete</a>
HR51MX6054	B107	PNP-DEL	<a href="#">Edit</a>	<a href="#">Delete</a>
HR51MX9060	B108	GGN-UK	<a href="#">Edit</a>	<a href="#">Delete</a>
JH51MX2060	B103	DVG-PTN	<a href="#">Edit</a>	<a href="#">Delete</a>
KA51MX2050	B100	BLR-CHN	<a href="#">Edit</a>	<a href="#">Delete</a>
KA51MX2051	B101	BLR-UDP	<a href="#">Edit</a>	<a href="#">Delete</a>
KA51MX2053	B111	BLR-MUM	<a href="#">Edit</a>	<a href="#">Delete</a>
KA51MX2056	B112	MLR-MUM	<a href="#">Edit</a>	<a href="#">Delete</a>
KA51MX2072	B104	BLR-MLR	<a href="#">Edit</a>	<a href="#">Delete</a>
KA51MX6709	B115	DEL-JK	<a href="#">Edit</a>	<a href="#">Delete</a>
KA51MX7002	B109	BLR-GOA	<a href="#">Edit</a>	<a href="#">Delete</a>
RJ51MX2054	B102	BKN-DEL	<a href="#">Edit</a>	<a href="#">Delete</a>

## DISPLAYING THE AGENT DETAILS:

[Go Back To Home Page](#)

The Agent Details Are As Follows

Agent Name	Agent Address	Agent Number	Update	Remove
MUSKAN	AJMERAINF	A100	<a href="#">Edit</a>	<a href="#">Delete</a>
AGARSH	SALARPURIA	A101	<a href="#">Edit</a>	<a href="#">Delete</a>
SAKSHI	SYMPHONY	A102	<a href="#">Edit</a>	<a href="#">Delete</a>
NEIL	RAJARRN	A103	<a href="#">Edit</a>	<a href="#">Delete</a>
PRIYANSH	ORION	A104	<a href="#">Edit</a>	<a href="#">Delete</a>
AJITH	SJR	A105	<a href="#">Edit</a>	<a href="#">Delete</a>
TANAY	EQUINOX	A106	<a href="#">Edit</a>	<a href="#">Delete</a>
RITIK	NATARAJAN	A107	<a href="#">Edit</a>	<a href="#">Delete</a>
IHA	GREENAGE	A108	<a href="#">Edit</a>	<a href="#">Delete</a>
SANJANA	CONCORDE	A109	<a href="#">Edit</a>	<a href="#">Delete</a>
FARHAN	GOA	A110	<a href="#">Edit</a>	<a href="#">Delete</a>
shahrukh	goa	A111	<a href="#">Edit</a>	<a href="#">Delete</a>
Aryan	Mumbai	A112	<a href="#">Edit</a>	<a href="#">Delete</a>
Gauri	Bikaner	A113	<a href="#">Edit</a>	<a href="#">Delete</a>

## DISPLAYING THE PASSENGER DETAILS :

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The Passenger Details Are As Follows

Passenger Number	Passenger Name	Passenger Address	Mobile Number	Bus Number	Update	Remove
PES1	RITIK	SYMPHONY	90908976	KA51MX2050	<a href="#">Edit</a>	<a href="#">Delete</a>
PES10	CHARAN	DOMICILE	654987129	KA51MX2051	<a href="#">Edit</a>	<a href="#">Delete</a>
PES11	LAVISHA	PRESTIGE	909089786	AZ51MX2091	<a href="#">Edit</a>	<a href="#">Delete</a>
PES12	Rudraksh	SYMPHONY	909049776	AZ51MX2091	<a href="#">Edit</a>	<a href="#">Delete</a>
PES13	ROHIT	PUNE	957631846	KA51MX2053	<a href="#">Edit</a>	<a href="#">Delete</a>
PES14	CHAHAL	BANGALORE	957456186	KA51MX2050	<a href="#">Edit</a>	<a href="#">Delete</a>
PES15	BUMRAH	MUMBAI	957256186	KA51MX2053	<a href="#">Edit</a>	<a href="#">Delete</a>
PES16	SANJANA	MUMBAI	957456186	KA51MX2050	<a href="#">Edit</a>	<a href="#">Delete</a>
PES17	RIZWAN	MUMBAI	907456186	KA51MX2053	<a href="#">Edit</a>	<a href="#">Delete</a>
PES2	PRIYA	BIKANER	965874321	RJ51MX2054	<a href="#">Edit</a>	<a href="#">Delete</a>
PES3	SHARMILA	BAGLUR	865497132	KA51MX2072	<a href="#">Edit</a>	<a href="#">Delete</a>
PES4	PRIYANSH	DEVGARH	965487231	HR51MX3050	<a href="#">Edit</a>	<a href="#">Delete</a>
PES5	RISHAB	PANIPAT	957631846	HR51MX9060	<a href="#">Edit</a>	<a href="#">Delete</a>
PES6	KAPIL	KARNAL	654987123	KA51MX7002	<a href="#">Edit</a>	<a href="#">Delete</a>
PES7	SAGAR	ARIZONA	965874321	HR51MX6054	<a href="#">Edit</a>	<a href="#">Delete</a>



## DISPLAYING THE GOVERNMENT DEPARTMENT DETAILS :

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The Government Details Are As Follows

Department Name	Owner Number	Tax Number	Update	Remove
HRRTC	1902	06-379-25545	<a href="#">Edit</a>	<a href="#">Delete</a>
HRRTC	2776	06-765-18565	<a href="#">Edit</a>	<a href="#">Delete</a>
DTC	1345	07-852-74139	<a href="#">Edit</a>	<a href="#">Delete</a>
RJRTC	1938	08-654-75396	<a href="#">Edit</a>	<a href="#">Delete</a>
JHRTC	1234	27-694-74125	<a href="#">Edit</a>	<a href="#">Delete</a>
KKRTC-4343	1002	29-852-12345	<a href="#">Edit</a>	<a href="#">Delete</a>
TNSRTC-4716	1003	33-741-95135	<a href="#">Edit</a>	<a href="#">Delete</a>
BMTC-6422	6792	51-125-18525	<a href="#">Edit</a>	<a href="#">Delete</a>
HRRTC	4097	51-852-32165	<a href="#">Edit</a>	<a href="#">Delete</a>

## DISPLAYING THE OWNER DETAILS :

[Go Back To Home Page](#)

The Owner Details Are As Follows

Owner Number	Owner Name	Owner Address	Mobile Number	Bus Number	Update	Remove
1002	AMY	MARATHALLI	965487231	KA51MX2072	<a href="#">Edit</a>	<a href="#">Delete</a>
1003	ADAM	CHENNAI	852369745	KA51MX2050	<a href="#">Edit</a>	<a href="#">Delete</a>
1004	SAKSHI	BTM	909083128	KA51MX2051	<a href="#">Edit</a>	<a href="#">Delete</a>
1005	ANUSHKA	JP NAGAR	998083128	KA51MX2051	<a href="#">Edit</a>	<a href="#">Delete</a>
1006	VIRAT	BANDRA	967083128	KA51MX2051	<a href="#">Edit</a>	<a href="#">Delete</a>
1234	BHEEM	JHARKHAND	654987123	JH51MX2060	<a href="#">Edit</a>	<a href="#">Delete</a>
1345	BOB	DELHI	965874321	RJ51MX2054	<a href="#">Edit</a>	<a href="#">Delete</a>
1902	JOHN	HARYANA	852364978	HR51MX6054	<a href="#">Edit</a>	<a href="#">Delete</a>
1938	OSWALD	RAJASTHAN	976583246	AZ51MX2090	<a href="#">Edit</a>	<a href="#">Delete</a>
2776	EVE	HARYANA	789456321	HR51MX9060	<a href="#">Edit</a>	<a href="#">Delete</a>
4097	RAJU	HARYANA	957631846	HR51MX3050	<a href="#">Edit</a>	<a href="#">Delete</a>
6792	BILL	JAYNAGAR	865497132	KA51MX2051	<a href="#">Edit</a>	<a href="#">Delete</a>
9998	RAJESH	MARENHALLI	909083128	AZ51MX2091	<a href="#">Edit</a>	<a href="#">Delete</a>

## DATABASE COUNT PAGE :

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### The Database Count Is As Follows

The total number of buses currently registered in the system are : 15

The total number of passengers currently registered in the system are : 17

The total number of agents currently registered in the system are : 14

The total number of owners currently registered in the system are : 13

The total number of government departments currently registered in the system are : 9

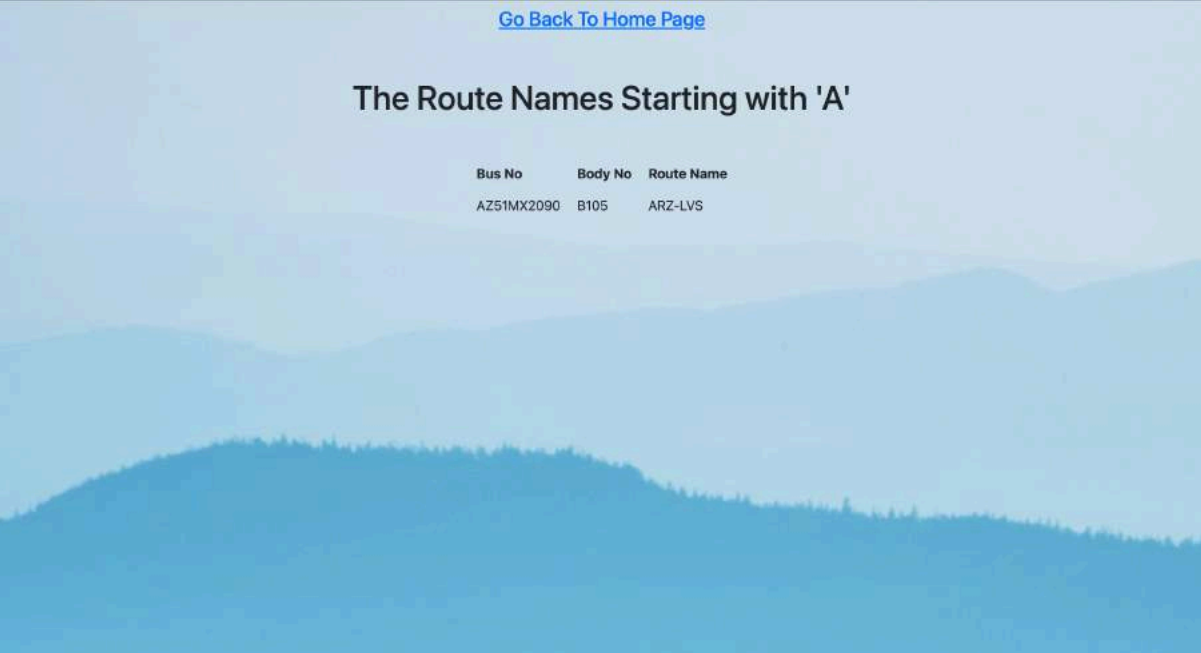
## BUS AGENT JOIN:

[Go Back To Home Page](#)

### The Bus and Agent Natural Join

Bus No	Body No	Route Name	Agent Name	Agent Address	Agent Number	Update	Remove
AZ51MX2090	B105	ARZ-LVS	MUSKAN	AJMERAINF	A100	<a href="#">Edit</a>	<a href="#">Delete</a>
AZ51MX2091	B110	BLR-RAJ	MUSKAN	AJMERAINF	A100	<a href="#">Edit</a>	<a href="#">Delete</a>
AZ51MX2095	B113	DEL-MUM	MUSKAN	AJMERAINF	A100	<a href="#">Edit</a>	<a href="#">Delete</a>
HR51MX3050	B106	KLN-KUK	MUSKAN	AJMERAINF	A100	<a href="#">Edit</a>	<a href="#">Delete</a>
HR51MX6054	B107	PNP-DEL	MUSKAN	AJMERAINF	A100	<a href="#">Edit</a>	<a href="#">Delete</a>
HR51MX9060	B108	GGN-UK	MUSKAN	AJMERAINF	A100	<a href="#">Edit</a>	<a href="#">Delete</a>
JH51MX2060	B103	DVG-PTN	MUSKAN	AJMERAINF	A100	<a href="#">Edit</a>	<a href="#">Delete</a>
KA51MX2050	B100	BLR-CHN	MUSKAN	AJMERAINF	A100	<a href="#">Edit</a>	<a href="#">Delete</a>
KA51MX2051	B101	BLR-UDP	MUSKAN	AJMERAINF	A100	<a href="#">Edit</a>	<a href="#">Delete</a>
KA51MX2053	B111	BLR-MUM	MUSKAN	AJMERAINF	A100	<a href="#">Edit</a>	<a href="#">Delete</a>
KA51MX2056	B112	MLR-MUM	MUSKAN	AJMERAINF	A100	<a href="#">Edit</a>	<a href="#">Delete</a>
KA51MX2072	B104	BLR-MLR	MUSKAN	AJMERAINF	A100	<a href="#">Edit</a>	<a href="#">Delete</a>
KA51MX6709	B115	DEL-JK	MUSKAN	AJMERAINF	A100	<a href="#">Edit</a>	<a href="#">Delete</a>
KA51MX7002	B109	BLR-GOA	MUSKAN	AJMERAINF	A100	<a href="#">Edit</a>	<a href="#">Delete</a>
RJ51MX2054	B102	BKN-DEL	MUSKAN	AJMERAINF	A100	<a href="#">Edit</a>	<a href="#">Delete</a>

## BUS ROUTENAMES THAT START WITH 'A' :



[Go Back To Home Page](#)

### The Route Names Starting with 'A'

Bus No	Body No	Route Name
AZ51MX2090	B105	ARZ-LVS

# CODE SCREENSHOTS :

## INDEX.HTML

```

Users > apple > .bitnami > stackman > machines > xampp > volumes > root >htdocs > dbms > index.html > ...
30 <div class="collapse navbar-collapse" id="navbarSupportedContent">
31 <ul class="navbar-nav mx-auto">
32 <li class="nav-item mx-lg-2">
33 <a class="nav-link" href="index.html">Home</a>
34 </li>
35 <li class="nav-item mx-lg-2">
36 <a class="nav-link" href="#aboutus">About us</a>
37 </li>
38 <li class="nav-item mx-lg-2">
39 <a class="nav-link" href="#services">Our services</a>
40 </li>
41 <li class="nav-item mx-lg-2">
42 <a class="nav-link" href="#customers">Our customers</a>
43 </li>
44 </ul>
45 <form class="d-flex">
46 <button class="btn" type="submit">Sign in</button>
47 </form>
48 </div>
49 </div>
50 </nav>
51 <!-- End of Navbar -->
52
53 <div class="mid d-sm-none d-md-block">
54 
55 <div class="over">
56 <h2 class="text-dark display-2 typewrite" data-period=2000 data-type=["Travel Made Easy", "Plan your vacation", "At your own comfort" ]'></h2>
57 <p>Ensuring the best services forever and always.</p>
58 <button class="btn hello" type="submit"><a href="#services">Get Started</a></button>
59 </div>
60 </div>
61 <!-- End of Video Part -->
62
63 <!-- About Us Section -->
64 <div class="container pt-5 py-5" id="aboutus">
65 <div class="row text-sm-center text-md-start">
66 <div class="col-sm-12 col-md-6 col-lg-6 mx-auto my-lg-5 py-5">
67 <h5 class="heading">PREMIUM TRAVEL WEBSITE</h5>
68 <h2 class="display-4 heading1">Why Choose Us</h2>
69 <p>Lorem ipsum dolor sit amet consectetur adipisicing elit. Voluptatem accusantium voluptatibus
70 est ducimus incidunt fuga nobis et ad, nihil sapiente animi molestias laudantium officia? Sapiente ex quam veniam nisi quasi.</p>
71 <button class="btn newButton" type="submit"><a href="#services">Learn More</a></button>
72 </div>
73 <div class="col-sm-12 col-md-6 col-lg-6 pt-5 d-sm-none d-md-block">
74 
75 </div>
76 </div>
77 </div>
78 <!-- End of About Us -->
79
80 <!-- Our Services -->
81 <div class="container py-5" id="services">
82 <div class="row text-sm-center text-md-start">
83 <div class="col-sm-12 col-md-6 col-lg-6 py-5 d-sm-none d-md-block">
84 
85 </div>
86 <div class="col-sm-12 col-md-6 col-lg-6 mx-auto my-lg-5">
87 <h5 class="heading">Our Services</h5>

```

## DISPLAY AGENT PAGE :

```

Users > apple > .bitnami > stackman > machines > xampp > volumes > root > httdocs > dbms > display.php
1  <style>
2    h1
3    {
4      padding: 40px;
5    }
6    td,th
7    {
8      padding: 10px;
9    }
10 </style>
11 <!DOCTYPE html>
12 <html>
13 <title>Display Passengers</title>
14 <!-- CSS only -->
15 <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/css/bootstrap.min.css" rel="stylesheet" integrity="sha384-1BmE4kWbQ78iYhFL
16 <meta charset="UTF-8">
17 <meta http-equiv="X-UA-Compatible" content="IE=edge">
18 <!-- Bootstrap CSS Files -->
19 <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.1/dist/css/bootstrap.min.css" rel="stylesheet" integrity="sha384-+0n0xVW2eSR50omG
20 <!-- FontAwesome -->
21 <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/4.7.0/css/font-awesome.min.css">
22 <meta name="port" content="width=device-width, initial-scale=1.0">
23 <!-- Google Fonts -->
24 <link rel="preconnect" href="https://fonts.gstatic.com">
25 <link href="https://fonts.googleapis.com/css2?family=Nunito&display=swap" rel="stylesheet">
26 <script defer src="https://unpkg.com/smoothscroll-polyfill@0.4.4/dist/smoothscroll.min.js"></script>
27 <body background="blue.jpg">
28 <center>
29 <div class="text-center py-2">
30 <a href="index.html"><h4>Go Back To Home Page</h4></a>
31 </div>
32 <h1>
33   The Passenger Details Are As Follows
34 </h1>
35 <?php
36 include("connection.php");
37 $query = "SELECT * FROM PASSENGER";
38
39 $data = mysqli_query($conn,$query);
40
41 $total = mysqli_num_rows($data);
42
43 if($total!=0)
44
45   ?>
46   <table>
47     <tr>
48       <th>Passenger Number</th>
49       <th>Passenger Name</th>
50       <th>Passenger Address</th>
51       <th>Mobile Number</th>
52       <th>Bus Number</th>
53       <th>Update</th>
54       <th>Remove</th>
55     </tr>
56
57   <?php

```



## INSERT INTO BUS PAGE :

```

Restricted Mode is intended for safe code browsing. Trust this window to enable all features. Manage Learn More
PES1UG19CS196.py week7.py PES2UG19CS301.py Insert.php x display.php join.php index.html
Users > apple > .bltnami > stackman > machines > xampp > volumes > root >htdocs > dbms > Insert.php
47 .contact-info h2{
48     margin-bottom: 10%;
49 }
50 .col-md-9{
51     background: #fff;
52     padding: 3%;
53     border-top-right-radius: 0.5rem;
54     border-bottom-right-radius: 0.5rem;
55 }
56 .button{
57     background: #001ca8;
58     color:white;
59 }
60 .button:hover{
61     color: #001ca8;
62     background:white;
63 }
64
65 </style>
66 </head>
67 <body>
68 <div class="text-center py-5">
69 <a href="index.html"><h4>Go Back To Home Page</h4></a>
70 </div>
71 <div class="container contact">
72     <div class="row">
73         <div class="col-md-3">
74             <div class="contact-info text-center">
75                 
76                 <h5>Bus Details</h5>
77                 <h6>Please enter the details!</h6>
78             </div>
79         </div>
80         <div class="col-md-9">
81             <form action="" method="GET">
82                 <!-- <div class="contact-form" method="GET" action="" -->
83                 <div class="form-group py-2">
84                     <label class="control-label col-sm-2" for="busno">BUS NO:</label>
85                     <div class="col-sm-10">
86                         <input type="text" class="form-control" id="busno" placeholder="Enter BUS NO" name="busno">
87                     </div>
88                 </div>
89                 <div class="form-group py-2">
90                     <label class="control-label col-sm-2" for="bodyno">BODY NO:</label>
91                     <div class="col-sm-10">
92                         <input type="text" class="form-control" id="bodyno" placeholder="Enter BODY NO" name="bodyno">
93                     </div>
94                 </div>
95                 <div class="form-group py-2">
96                     <label class="control-label col-sm-2" for="routename">ROUTE NAME:</label>
97                     <div class="col-sm-10">
98                         <input type="text" class="form-control" id="routename" placeholder="Enter ROUTE NAME" name="routename">
99                     </div>
100                 </div>
101                 <input type="submit" name="Submit" class="button" value="Submit">
102             </form>
103         </div>

```

## BUS-AGENT JOIN :

```

Users > apple > binnam > stackman > machines > xampp > volumes > root > httdocs > dbms > join.php
31 </div>
32 <h1>
33 The Bus and Agent Natural Join
34 </h1>
35 <?php
36 include("connection.php");
37 $query = "SELECT * FROM BUS NATURAL JOIN AGENT";
38
39 $data = mysqli_query($conn,$query);
40
41 $total = mysqli_num_rows($data);
42
43 if($total!=0)
44 {
45     ?>
46     <table>
47     <tr>
48         <th>Bus No</th>
49         <th>Body No</th>
50         <th>Route Name</th>
51         <th>Agent Name</th>
52         <th>Agent Address</th>
53         <th>Agent Number</th>
54         <th>Update</th>
55         <th>Remove</th>
56     </tr>
57
58     <?php
59     while($result = mysqli_fetch_assoc($data))
60     {
61         echo "<tr>
62             <td>" . $result['BUSNO'] . "</td>
63             <td>" . $result['BODYNO'] . "</td>
64             <td>" . $result['ROUTENAME'] . "</td>
65             <td>" . $result['ANAME'] . "</td>
66             <td>" . $result['AADDRESS'] . "</td>
67             <td>" . $result['ANO'] . "</td>
68             <td><a href='update.php?bn=$result[BUSNO]&bon=$result[BODYNO]&rn=$result[ROUTENAME]'>Edit</a></td>
69             <td><a href='delete.php?bn=$result[BUSNO]' onclick='return checkdelete()'>Delete</a></td>
70         </tr>";
71     }
72 }
73 else{
74     echo "No record found";
75 }
76 ?>
77 </table>
78 <script >
79     function checkdelete()
80     {
81         return confirm('Are you sure you want to delete?')
82     }
83 </script>
84 </center>
85 </body>
86 </html>

```

Restricted Mode 0 0 0

## Changes in Business/application that might lead to-

### SCHEMA CHANGES:

As you likely know, a database's schema defines the name, type, format, and meaning of the data stored in a database. The schema is part of what helps turn data into useful information. When a schema is changed, it creates a ripple through all the applications that depend on that schema. With relational databases, a schema change can take weeks for developers to deal with while they adapt their code to the new model.

### SCHEMA CHANGES STATEMENT:

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0271 seconds.)

```
ALTER TABLE PASSENGER ADD COLUMN Age INTEGER(3);
```

[ [Edit inline](#) ] [ [Edit](#) ] [ [Create PHP code](#) ]

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0559 seconds.)

```
ALTER TABLE PASSENGER DROP COLUMN Age CASCADE;
```

[ [Edit inline](#) ] [ [Edit](#) ] [ [Create PHP code](#) ]

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0084 seconds.)

```
ALTER TABLE AGENT ADD MOBILENO INTEGER(10);
```

[ [Edit inline](#) ] [ [Edit](#) ] [ [Create PHP code](#) ]

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0187 seconds.)

```
ALTER TABLE AGENT DROP MOBILENO CASCADE;
```

[ [Edit inline](#) ] [ [Edit](#) ] [ [Create PHP code](#) ]



## CONSTRAINT CHANGES :

Constraints should be set up in Interface Builder, or programmatically created by the view controller during the controller's initial setup (for example, in viewDidLoad). If you need to dynamically change constraints at runtime, it's usually best to change them when the application's state changes. For example, if you want to change a constraint in response to a button tap, make that change directly in the button's action method.

## CONSTRAINT CHANGES STATEMENTS :

✔ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0690 seconds.)

```
ALTER TABLE AGENT ADD CONSTRAINT UNIQUE(ANAME);
```

[ [Edit inline](#) ] [ [Edit](#) ] [ [Create PHP code](#) ]

✔ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0255 seconds.)

```
ALTER TABLE PASSENGER MODIFY PNAME VARCHAR(30) NOT NULL;
```

[ [Edit inline](#) ] [ [Edit](#) ] [ [Create PHP code](#) ]

✔ MySQL returned an empty result set (i.e. zero rows). (Query took 0.1457 seconds.)

```
ALTER TABLE OWNER ADD CONSTRAINT OWNER_CHECK CHECK(OWNERNO>1000);
```

[ [Edit inline](#) ] [ [Edit](#) ] [ [Create PHP code](#) ]

✔ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0314 seconds.)

```
ALTER TABLE OWNER DROP CONSTRAINT OWNER_CHECK;
```

[ [Edit inline](#) ] [ [Edit](#) ] [ [Create PHP code](#) ]

## **MIGRATION OF DBMS FROM SQL TO NOSQL(MONGODB):**

### **1. Write data to relational database**

Step 1: Connect to database

Step 2: Create table query

Step 3: Insert data using query

### **2. Read data from relational database**

### **3. Create MongoDB Collection**

### **4. Write data to MongoDB**

Step1: Convert to JSON and then to BSON

Step2: Write to MongoDB read.

### **5. Close the connection**

## **WHY NOSQL?**

NoSQL databases are often used in projects because schema changes – which are common – don't require a lot of overhead.

This allows developers to focus on business logic and algorithms instead of dealing with schema updates. Finally, scalability is a major reason to choose a NoSQL database. NoSQL databases have been designed for easy horizontal scaling without the need for specialized third-party components.

### Migrations to a NoSQL database:

Database Type	Document database	Key-value store	Wide column store	Graph database
Example Offering	MongoDB	Redis	Apache HBase	Neo4J
Transactions	Supports ACID transactions.	Supports ACID transactions.	Does not support transactions, but guarantees atomicity at the row level.	Supports ACID transactions.
Data Models	Best when data is modelled by a set of interrelated objects, with its flexibility toward data structure making it a good general purpose database. Documents can contain nested structures for capturing complex data.	Excellent for frequent high-speed access to the same chunks of data, even if those chunks of data are large.	Best for extremely large sets of data, where querying patterns are predictable, often for supporting aggregation and analytics.	Suitable when there is a need to store and query data about the connections between related data, such as in social network contexts.

Database Type	Document database	Key-value store	Wide column store	Graph database
Query Performance	Fast retrieval of individual documents, much like key-value stores, but can also support complex queries with aggregation pipelines.	Best for instantaneous retrieval when queries are not complex; useful for caching use cases.	Excellent when aggregating values on particular columns, with strong compression and in-memory support.	Fast for simple queries, but also efficient when answering questions about connections between data; excels when profiling data and determining clusters of related objects.

- The ideal NoSQL databases to use are the document stores, as they support most general use cases.
- A document database is particularly suited for websites for its ability to support complex data structures and parent-child relationships within a single document record. There is no need to incorporate object-relational mappers (ORMs) or object-document mappers (ODM) because document databases store the raw objects in JSON/BSON or similar formats.
- As the most efficient NoSQL database option for websites and API endpoints, MongoDB is easy to get started with, and it can grow and evolve with your website. MongoDB already has excellent integration with popular web programming languages like Python, PHP, Node, Java, Golang, and many others. Additionally, several libraries help with using MongoDB with various web frameworks like Laravel or Ruby on Rails.

**CONTRIBUTIONS :**

NAME OF THE TEAM MEMBER	CONTRIBUTIONS
<b>PRIYA MOHATA</b>	<ul style="list-style-type: none"><li>• FRONTEND DEVELOPMENT</li><li>• INTEGRATION OF FRONTEND WITH BACKEND</li><li>• DOCUMENTATION OF THE RESPECTIVE PART</li></ul>
<b>SHARMILA R</b>	<ul style="list-style-type: none"><li>• SCHEMA CHANGES AND CONSTRAINT CHANGES</li><li>• MIGRATING TO NOSQL</li><li>• DOCUMENTATION REGARDING THE SAME</li></ul>
<b>RITIK</b>	<ul style="list-style-type: none"><li>• LISTING DEPENDENCIES</li><li>• DOCUMENTATION OF THE RESPECTIVE PART</li></ul>

----- THANK YOU -----