



Spring Boot Project

Laptop Shop Management System

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Introduction

- Laptop Shop management is a distributed application, developed to maintain the details of customers and laptops details.
- It maintains the information about the personal details of the customers, also the details about the laptop system which enables to generate the easy billing maintenance.
- The application is actually a suite of applications developed using java. It's simple to understand even if you're not smiler with this application.

- The application is reduced as much as possible to avoid errors while entering the data.
- It also provides error message while entering invalid data.
- No formal knowledge is needed for the user to use this system.
- Thus, by this all it proves it is user-friendly.
- Laptop shop Management System, it can assist the shop owners to concentrate on their other activities rather concentrate on the record-keeping and manual billing.

Objective

- The purpose of the Laptop Shop Management System is to automate the existing manual system with the help of computerized equipment and full-fledged computer software, fulfilling their requirements so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. The required software and hardware are easy to work with.

- Laptop Shop Management systems, as described above, can lead to error-free, secure, reliable and fast management systems.

- It can assist the user to concentrate on their activities rather than concentrate on the record keeping.
- Thus, it will help the shop owners in better utilization of resources.
- The shop owners can maintain computerized records without redundant entries.
- That means that one need not be distracted by information that is not relevant while being able to reach the information.

Software & hardware used

- Software Requirements**

- Operating System: Windows 7 or Windows 10
- Language : Java
- IDE : Spring Boot, Postman
- Backend : Microsoft MySQL server

- Hardware Requirements**

- CPU : Intel Pentium IV processor
- RAM : 512 MB or above
- Hard Disk : 2 GB hard disk space or minimum

□ Back-End

- **Core Java**
- **Spring Boot**
- **Spring Data JPA**
- **Hibernate**
- **Spring Boot Web**
- **MySQL Database**
- **Thyme leaf**
- **JUnit**

Proposed System

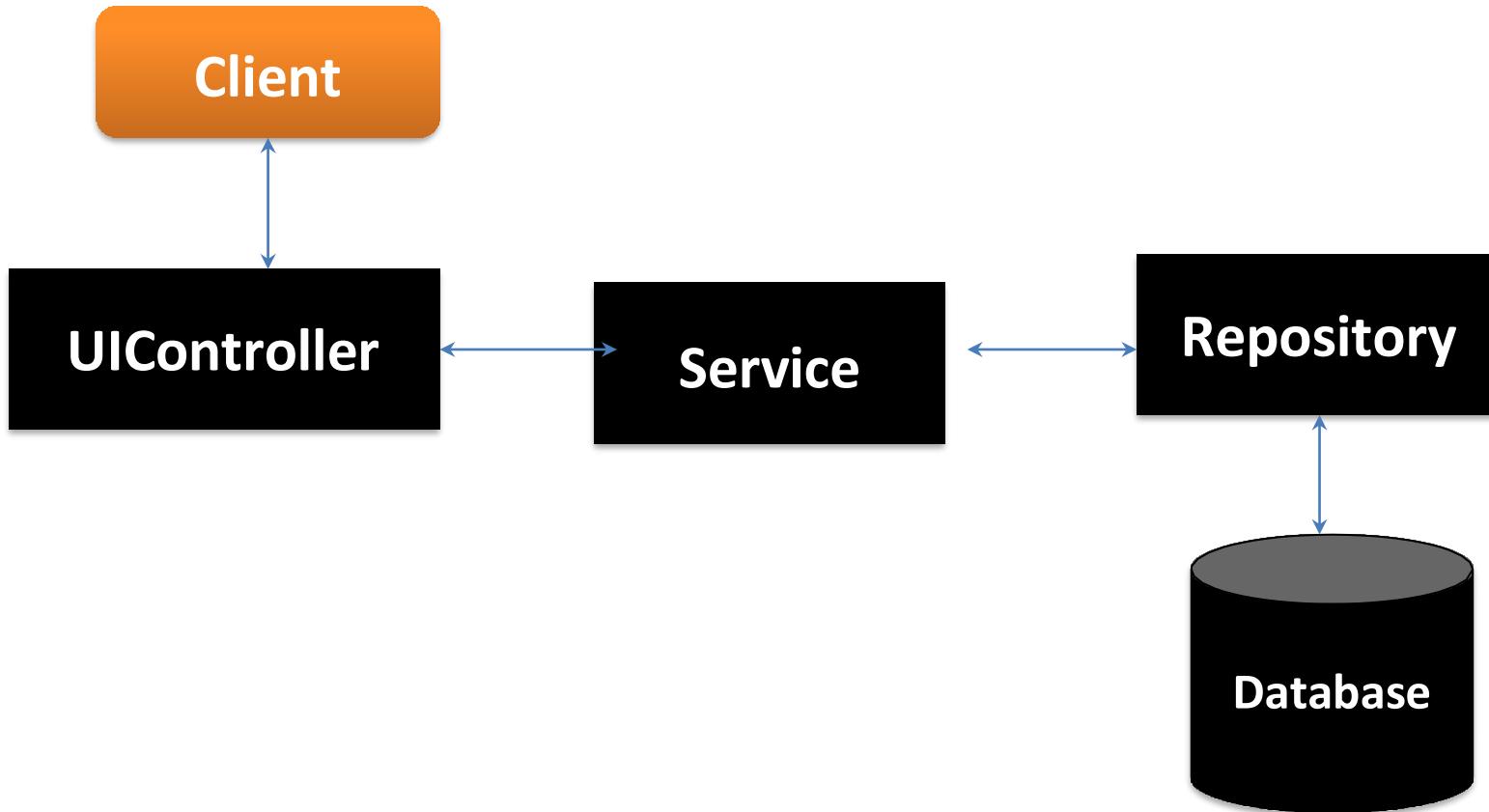
- First, we have to run the Application on the browser, the index page will be shown after that if the user is registered then he/she can login the page and he/she can enter in the application.
- If the user is not registered then he/she needs to register themselves and then he/she can continue to login and he/she can access any time.
- After that related pages will be there like if user is admin so he/she can access all the operations like insert, delete, update and search the details.
- If the user is customer, then he/she can view the related record and he/she can update the record.
- And after that he/she can log out by themselves.

About Back-end:

- There are mainly four operations will be performed by the user and admin Ex. Insert, update, retrieve/fetch, delete.
- This operation will be performed using the spring boot framework, core java and spring boot web, spring data Jpa, and hibernate.
- And thyme leaf is the design pattern for the user interface.
- For connectivity purpose we are using MySQL database. It is connected to the java and database.

Working Of Back-End

- There are mainly three stages –



- ❑ **UIController** - In Spring Boot, the UIController class is responsible for processing incoming requests, preparing a model, and returning the view to be rendered as a response.
- ❑ **Service** - Components are the class file which contains @Service annotation. These class files are used to write business logic in a different layer.
- ❑ **Repository** - Repository is a specialization of @Component annotation which is used to indicate that the class provides the mechanism for storage, retrieval, update, delete and search operation on objects.

- Repository is directly connected with the database and then it can return to the repository and response to the service and it can return to the controller and then response send to the client.**

Snapshots

1. LOG IN PAGE

Home Workspaces Explore Search Postman Sign In Create Account

Working locally in Scratch Pad. Switch to a Workspace

Scratch Pad New Import < PUT http | GET http | POST http | POST http | PUT http | Runner > + ... No Environment </>

Collections APIs Environments Mock Servers Monitors History

http://localhost:8889/brand

GET http://localhost:8889/brand

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

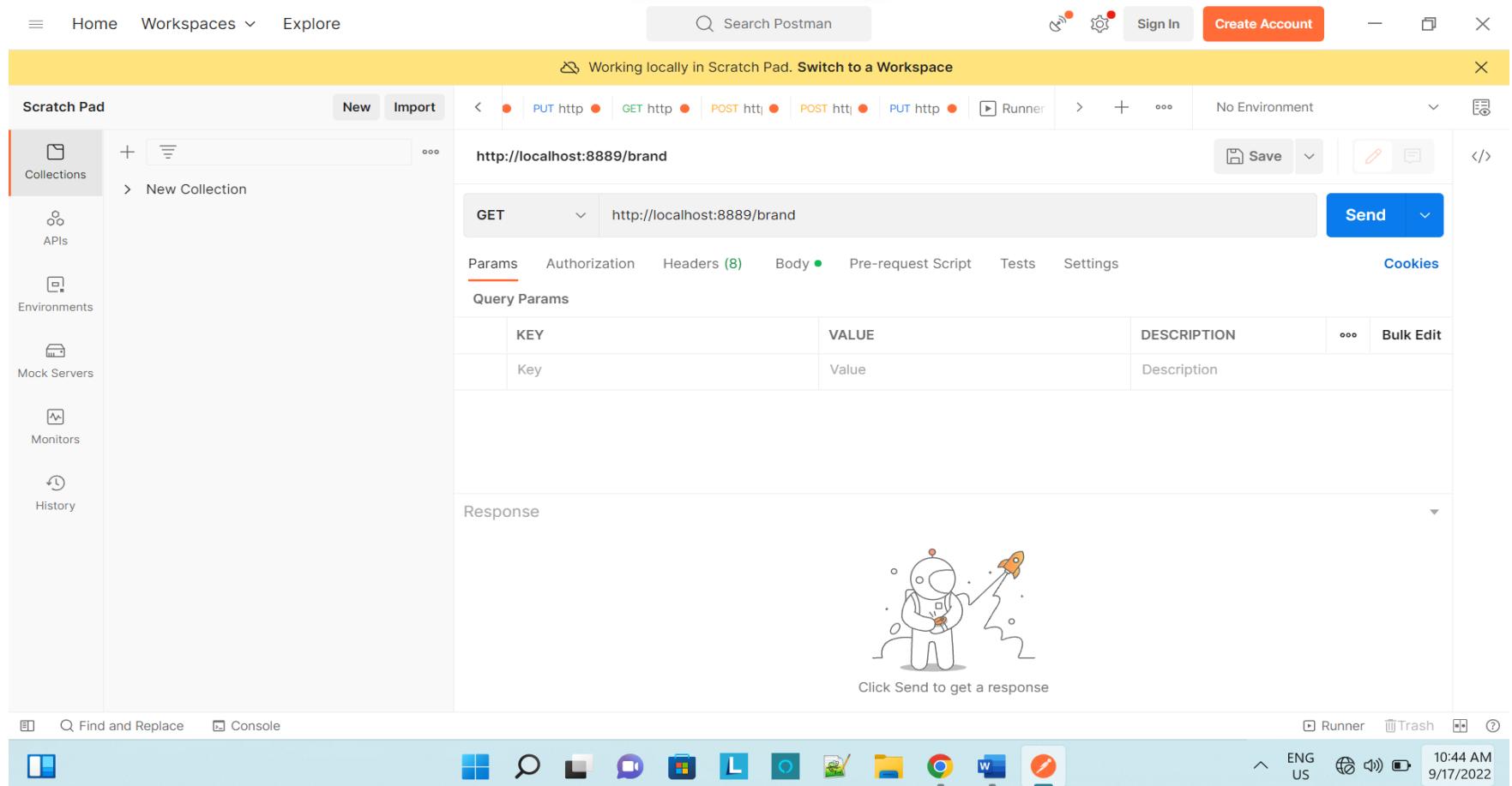
Query Params

KEY	VALUE	DESCRIPTION	...	Bulk Edit
Key	Value	Description		

Response

Click Send to get a response

Find and Replace Console Runner Trash ENG US 10:44 AM 9/17/2022



2. Get All Brands: /brand

The screenshot shows the Postman application interface. The top navigation bar includes 'Home', 'Workspaces', 'Explore', a search bar 'Search Postman', and account options 'Sign In' and 'Create Account'. A yellow banner at the top says 'Working locally in Scratch Pad. Switch to a Workspace'. The left sidebar has sections for 'Scratch Pad' (selected), 'Collections', 'APIs', 'Environments', 'Mock Servers', 'Monitors', and 'History'. The main workspace shows a request for 'http://localhost:8889/brand' using a 'GET' method. The 'Body' tab is selected, showing a JSON response with three brand objects:

```
1
2   {
3     "bid": 1,
4     "brandname": "DELL",
5     "enrolledlaptop": []
6   },
7   {
8     "bid": 2,
9     "brandname": "LENOVO",
10    "enrolledlaptop": []
11  },
12  {
13    "bid": 3,
```

The response status is 200 OK with 163 ms latency and 364 B size. Below the response, there are tabs for 'Pretty', 'Raw', 'Preview', 'Visualize', and 'JSON'. The bottom of the screen shows a toolbar with icons for 'Find and Replace', 'Console', 'Runner', 'Trash', and system status like '87°F Haze', 'ENG US', '7:24 PM 9/20/2022', and battery level '18'.

3. Get All Laptops:/laptop

The screenshot shows the Postman application interface. The left sidebar is titled "Scratch Pad" and contains icons for Collections, APIs, Environments, Mock Servers, Monitors, and History. The main workspace has a yellow header bar with the text "Working locally in Scratch Pad. Switch to a Workspace". Below this, there's a toolbar with buttons for PUT, GET, POST, and other actions, followed by a "Sign In" button and a "Create Account" button. The main area shows a GET request to "http://localhost:8889/laptop". The response body is displayed in JSON format, showing two laptop objects:

```
13
14     "lid": 2,
15     "laptopname": "Dell G11",
16     "lprocess": "Core i3",
17     "lRAM": "8 GB",
18     "lStorage": "180 GB",
19     "lOS": "Windows 10",
20     "lweight": "3.50 KG",
21     "lprice": 20000.0,
22     "customer": null
23 },
24 {
25     "lid": 3,
26     "laptopname": "Lenovo ideapad 3",
27     "lprocess": "Core i5",
28     "lRAM": "16GB",
29     "lStorage": "250GB",
```

At the bottom, there are buttons for Find and Replace, Console, Runner, Trash, and a status bar showing "87°F Haze", system icons, and the date/time "7:36 PM 9/20/2022 18".

4. Get All Customers:/customer

The screenshot shows the Postman application interface. The top navigation bar includes Home, Workspaces, Explore, a search bar, and account options (Sign In, Create Account). A yellow banner at the top center says "Working locally in Scratch Pad. Switch to a Workspace". The left sidebar has sections for Collections, APIs, Environments, Mock Servers, Monitors, and History. The main area shows a collection named "Scratch Pad" with a single item: a GET request to "http://localhost:8889/laptop". The request details tab shows the method as GET, the URL as "http://localhost:8889/laptop", and various tabs for Params, Authorization, Headers (8), Body (selected), Pre-request Script, Tests, and Settings. The Body tab displays a JSON response with two laptop objects. The first object has lid 2, name "Dell G11", process "Core i3", RAM "8 GB", storage "180 GB", OS "Windows 10", weight "3.50 KG", and price 20000.0. The second object has lid 3, name "Lenovo ideapad 3", process "Core i5", RAM "16GB", and storage "250GB". Below the JSON is a code editor with line numbers 14 to 29. The bottom status bar shows "200 OK 14 ms 652 B" and a "Save Response" button. The bottom navigation bar includes Find and Replace, Console, Runner, Trash, and system icons for weather (87°F Haze), search, file, message, task, folder, browser, and a note.

```
14    "lid": 2,
15    "laptopname": "Dell G11",
16    "lprocess": "Core i3",
17    "lRAM": "8 GB",
18    "lStorage": "180 GB",
19    "lOS": "Windows 10",
20    "lweight": "3.50 KG",
21    "lprice": 20000.0,
22    "customer": null
23  },
24  {
25    "lid": 3,
26    "laptopname": "Lenovo ideapad 3",
27    "lprocess": "Core i5",
28    "lRAM": "16GB",
29    "lStorage": "250GB",
```

5. Add Brand: /brand

The screenshot shows the Postman application interface. The top navigation bar includes Home, Workspaces, Explore, a search bar, and buttons for Sign In, Create Account, and various notifications.

The main workspace is titled "Working locally in Scratch Pad. Switch to a Workspace". It displays a POST request to `http://localhost:8889/brand`. The request details show the method as POST, the URL as `http://localhost:8889/brand`, and the Body tab selected. The Body content is a JSON object:

```
1 ... "brandname": "ASUS"
```

The response details show a 201 Created status with 31 ms response time and 217 B size. The response body is also a JSON object:

```
1 "bid": 4,
2 "brandname": "ASUS",
3 "enrolledlaptop": []
```

The left sidebar contains links for Collections, APIs, Environments, Mock Servers, Monitors, and History. The bottom of the screen shows a toolbar with icons for Find and Replace, Console, Runner, Trash, and system status indicators (weather, battery, signal, date/time).

6. Update Brand: /brand/{bid}

The screenshot shows the Postman application interface. The top navigation bar includes 'Home', 'Workspaces', 'Explore', a search bar 'Search Postman', and buttons for 'Sign In' and 'Create Account'. A yellow banner at the top states 'Working locally in Scratch Pad. Switch to a Workspace'. The left sidebar has sections for 'Collections', 'APIs', 'Environments', 'Mock Servers', 'Monitors', and 'History'. The main area is titled 'Scratch Pad' and shows a 'PUT' request to 'http://localhost:8889/brand/1'. The 'Body' tab is selected, showing a JSON payload:

```
1 {  
2   ... "brandname": "LAVA"  
3 }
```

The 'Body Results' section shows the response in 'Pretty' format:

```
1 {  
2   "bid": 1,  
3   "brandname": "LAVA",  
4   "enrolledlaptop": []  
5 }
```

At the bottom, there are buttons for 'Find and Replace', 'Console', 'Runner', 'Trash', and system status indicators for battery level, signal strength, and time ('7:28 PM 9/20/2022').

7. Delete Brand :/brand/{bid}

The screenshot shows the Postman application interface. The top navigation bar includes Home, Workspaces, Explore, a search bar, and options for Sign In and Create Account. The main workspace is titled "Working locally in Scratch Pad. Switch to a Workspace".

The left sidebar contains links for Collections, APIs, Environments, Mock Servers, Monitors, and History. The main area displays a DELETE request to `http://localhost:8889/brand/5`. The request details show the method as DELETE, the URL as `http://localhost:8889/brand/5`, and the Body tab selected with JSON content:

```
1
2 ... "brandname": "LAVA"
3
```

The response section shows a successful 200 OK status with a response time of 35 ms and a size of 190 B. The response body contains the message: "1 Brand deleted successfully".

The bottom navigation bar includes Find and Replace, Console, Runner, Trash, and Help. The system tray at the bottom right shows the date and time as 7:29 PM 9/20/2022, along with battery and connectivity icons.

8. Add Customer :/customer

The screenshot shows the Postman application interface. The top navigation bar includes Home, Workspaces, Explore, a search bar, and account options (Sign In, Create Account). A yellow banner at the top center says "Working locally in Scratch Pad. Switch to a Workspace". The left sidebar has sections for Collections, APIs, Environments, Mock Servers, Monitors, and History. The main area shows a POST request to `http://localhost:8889/customer`. The Body tab is selected, showing the following JSON payload:

```
1 {
2     "cemailid": "giri@gmail.com",
3     "cmobileno": "8877123434",
4     "caddress": "Kolkata",
5     "customername": "GIRI",
6     "cPayAmount": "60000"
7 }
```

The response section shows a 201 Created status with 18 ms and 295 B. The response body is identical to the request body.

At the bottom, there are icons for Find and Replace, Console, Runner, Trash, and system notifications (87°F Haze, 7:48 PM 9/20/2022, ENG US).

9. Update Customer: customer/{cid}

The screenshot shows the Postman application interface. The top navigation bar includes Home, Workspaces, Explore, a search bar, and account options (Sign In, Create Account). The main area is titled "Working locally in Scratch Pad. Switch to a Workspace".

The left sidebar contains links for Collections, APIs, Environments, Mock Servers, Monitors, and History. The main workspace shows a PUT request to `http://localhost:8889/customer/5`. The request parameters are set to "form-data". The "Body" tab is selected, displaying the following JSON payload:

```
1  {
2      "cemailid": "priya@gmail.com",
3      "cmobileno": "9786532145",
4      "caddress": "Mumbai",
5      "customername": "PRIYA",
6      "cPayAmount": "10000"
```

The response section shows a successful 200 OK status with a response time of 22 ms and a body size of 291 B. The response JSON is identical to the request body.

At the bottom, there are buttons for Find and Replace, Console, Runner, Trash, and Help. The system tray shows the date and time as 9/20/2022 7:50 PM, with a battery level of 18% and a weather icon indicating 87°F Haze.

10. Delete Customer: /customer/{cid}

Working locally in Scratch Pad. Switch to a Workspace

Scratch Pad

New Import

PUT http GET http POST http POST http PUT http Runner

http://localhost:8889/customer/5

DELETE http://localhost:8889/customer/5

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies Beautify

none form-data x-www-form-urlencoded raw binary GraphQL JSON

```
1 "cemailid": "priya@gmail.com",
2 "cmobileno": "9786532145",
3 "caddress": "Mumbai",
4 "customername": "PRIYA",
5 "cPayAmount": "10000"
```

Body Cookies Headers (5) Test Results

Pretty Raw Preview Visualize Text

Customer deleted successfully

200 OK 21 ms 193 B Save Response

Find and Replace Console Runner Trash

87°F Haze

ENG US 7:52 PM 9/20/2022 18

11. Add Laptop :/laptop

The screenshot shows the Postman application interface. The top navigation bar includes Home, Workspaces, Explore, a search bar, and account options (Sign In, Create Account). A yellow banner at the top states "Working locally in Scratch Pad. Switch to a Workspace". The left sidebar has tabs for Collections, APIs, Environments, Mock Servers, Monitors, and History, with Collections selected. The main workspace shows a POST request to `http://localhost:8889/laptop`. The request details tab shows the method as POST and the URL. The Headers tab lists 8 headers. The Body tab is active, showing a JSON payload:

```
3     ...."lOS": "Windows 11",
4     ...."laptopname": "Dell G15",
5     ...."lweight": "2.50KG",
6     ...."lStorage": "256KG",
7     ...."lprocess": "Core i7",
8     ...."lprice": 40000
```

The response tab shows a 201 Created status with 49 ms and 327 B. The response body is also JSON:

```
1     {
2       "lid": 1,
3       "laptopname": "Dell G15",
4       "lprocess": "Core i7",
5       "lRAM": "16GB",
6       "lStorage": "256KG",
7       "lOS": "Windows 11",
```

The bottom navigation bar includes Find and Replace, Console, Runner, Trash, and system status (87°F Haze, 7:32 PM 9/20/2022).

12. Update Laptop: /laptop/{lid}

The screenshot shows the Postman application interface. The top navigation bar includes Home, Workspaces, Explore, a search bar, and account options (Sign In, Create Account). A yellow banner at the top says "Working locally in Scratch Pad. Switch to a Workspace".

The left sidebar has sections for Collections, APIs, Environments, Mock Servers, Monitors, and History. The main area shows a collection named "New Collection".

A PUT request is being prepared for the URL `http://localhost:8889/laptop/3`. The "Body" tab is selected, showing the following JSON payload:

```
1  {
2    "lid": 3,
3    "laptopname": "Lenovo ideapad 3",
4    "lprocess": "Core i5",
5    "lRAM": "16 GB",
6    "lStorage": "250 GB",
7    "OST": "Windows 12",
```

The response section shows a 200 OK status with 24 ms and 330 B. Below the response, there are tabs for Body, Cookies, Headers (5), and Test Results. The Body tab is selected, displaying the same JSON response.

The bottom of the screen shows a toolbar with icons for Find and Replace, Console, Runner, Trash, and system status (87°F Haze, ENG US, 7:41 PM, 9/20/2022, 18 notifications).

13. Delete Laptop: /laptop/{lid}

The screenshot shows the Postman application interface. The top navigation bar includes Home, Workspaces, Explore, a search bar, and account options. The main area is titled "Working locally in Scratch Pad. Switch to a Workspace".

The left sidebar has a "Collections" tab selected, showing a "+ New Collection" button and a "New Collection" entry. Other tabs include APIs, Environments, Mock Servers, Monitors, and History.

The central workspace shows a DELETE request to `http://localhost:8889/laptop/4`. The "Body" tab is active, displaying the following JSON payload:

```
1
2   ...
3     "laptopname": "Lenovo ideapad 3",
4     "lprocess": "Core i5",
5     "lRAM": "16 GB",
6     "lStorage": "250 GB",
7     "lOS": "Windows 12",
8     "lweight": "1.90 KG",
9     "lprice": 56000.0
```

The response status is 200 OK, with 25 ms and 191 B details. The response body is "Laptop deleted successfully".

The bottom navigation bar includes Find and Replace, Console, Runner, Trash, and a status bar showing 87°F Haze, system icons, and the date/time 7:43 PM 9/20/2022 18.

14. Add Brand to Laptop :/brand/{bid}/laptop/{lid}

The screenshot shows the Postman application interface. The top navigation bar includes Home, Workspaces, Explore, a search bar, and account options. A yellow banner at the top says "Working locally in Scratch Pad. Switch to a Workspace". The left sidebar has sections for Collections, APIs, Environments, Mock Servers, Monitors, and History. The main area is titled "Scratch Pad" and shows a "PUT http://localhost:8889/brand/1/laptop/1" request. The Headers tab shows 8 items, and the Body tab contains the following JSON payload:

```
1 "bid": 1,
2 "brandname": "DELL",
3 "enrolledlaptop": [
4     {
5         "lid": 1,
6         "laptopname": "Dell G15",
7         "lprocess": "Core i7",
8         "lRAM": "16 GB",
9         "lStorage": "256 GB",
10        "lOS": "Windows 11",
11        "lweight": "2.50 KG",
12        "lprice": 40000.0,
13        "customer": null
14    }
15 ]
16
17 ]
```

The response status is 200 OK, 34 ms, 373 B. The bottom navigation bar includes Find and Replace, Console, Runner, Trash, and a weather icon (87°F Haze). The bottom right corner shows the date and time (9/20/2022, 8:19 PM) and a notification badge (18).

15. Add Laptop to Customer: /customer/{cid}/laptop/{lid}

The screenshot shows the Postman application interface. On the left, there's a sidebar with icons for Collections, APIs, Environments, Mock Servers, Monitors, and History. The main area is titled "Scratch Pad" and shows a "PUT" request to "http://localhost:8889/customer/3/laptop/2". The "Body" tab is selected, displaying the following JSON payload:

```
1  "lid": 3,
2   "laptopname": "Apple Ai5",
3   "lprocess": "Core i3",
4   "lRAM": "8 GB",
5   "lStorage": "180 GB",
6   "lOS": "Windows 10",
7   "lweight": "3.50 KG",
8   "lprice": 20000.0,
9   "customer": {
10     "cid": 2,
11     "customername": "SARAA",
12     "caddress": "Chennai",
13     "cmobileno": "9677717534",
14     "cemailid": "saraa@gmail.com",
15     "cPayAmount": 70000.0
16   }
17 }
```

The "Test Results" tab shows a successful response: 200 OK, 30 ms, 449 B. The bottom status bar includes icons for Find and Replace, Console, Runner, Trash, and a weather forecast (87°F Haze). The system tray shows the date (9/20/2022), time (8:20 PM), battery level (18%), and network status.

16. Get All Records :/brand

The screenshot shows the Postman application interface. The top navigation bar includes Home, Workspaces, Explore, a search bar, and account options (Sign In, Create Account). A yellow banner at the top center says "Working locally in Scratch Pad. Switch to a Workspace". The left sidebar has sections for Collections, APIs, Environments, Mock Servers, Monitors, and History. The main workspace shows a GET request to `http://localhost:8889/brand`. The response body is displayed in JSON format:

```
36  {  
37      "bid": 3,  
38      "brandname": "APPLE",  
39      "enrolledlaptop": [  
40          {  
41              "lid": 3,  
42              "laptopname": "Apple Ai5",  
43              "lprocess": "Core i3",  
44              "lRAM": "8 GB",  
45              "lStorage": "180 GB",  
46              "lOS": "Windows 10",  
47              "lweight": "3.50 KG",  
48              "lprice": 20000.0,  
49              "customer": {  
50                  "cid": 2,  
51                  "customername": "SARAA",  
52                  "caddress": "Chennai",  
53              }  
54          }  
55      ]  
56  }  
57  }  
58  }  
59  }  
60  }  
61  }  
62  }  
63  }  
64  }  
65  }  
66  }  
67  }  
68  }  
69  }  
70  }  
71  }  
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86  }  
87  }  
88  }  
89  }  
90  }  
91  }  
92  }  
93  }  
94  }  
95  }  
96  }  
97  }  
98  }  
99  }  
100 }  
101 }  
102 }
```

The bottom status bar shows system information: 87°F Haze, a weather icon, a magnifying glass icon, a document icon, a speech bubble icon, a Microsoft logo, a blue L-shaped icon, a blue square icon, a green leaf icon, a red pencil icon, ENG US, a signal strength icon, a battery icon, 8:08 PM, 9/20/2022, and a notification badge with the number 18.

17. Find by laptop name: /laptopname/{lname}

Working locally in Scratch Pad. Switch to a Workspace

Scratch Pad

New Import

PUT http ● GET http ● POST http ● POST http ● PUT http ● Runner

http://localhost:8889/laptopname/Dell G11

GET http://localhost:8889/laptopname/Dell G11

Params Authorization Headers (8) Body Tests Settings Cookies Beautify

Body

```
1 {"lid": 2, "lname": "Dell G11", "lprocess": "Core i5", "lRAM": "16 GB", "lStorage": "1TB", "lOST": "Windows 10", "lweight": "3.50 KG", "lprice": 20000.0, "customer": null}
```

200 OK 20 ms 324 B Save Response

Find and Replace Console

Runner Trash

87°F Haze

ENG US 7:43 PM 9/20/2022 18

18. Find by brand name: /brandname/{bname}

The screenshot shows the Postman application interface. The top navigation bar includes Home, Workspaces, Explore, a search bar, and account options (Sign In, Create Account). The main area is titled "Working locally in Scratch Pad. Switch to a Workspace".

The left sidebar has tabs for Collections, APIs, Environments, Mock Servers, Monitors, and History. The "Collections" tab is selected.

The central workspace shows a GET request to `http://localhost:8889/brandname/Apple`. The "Body" tab is active, showing the following JSON payload:

```
1
2   ...
3   "brandname": "HONOR"
4
5
```

The response section shows a 200 OK status with 83 ms latency and 213 B size. The response body is displayed in JSON format:

```
1
2   {
3     "bid": 3,
4     "brandname": "APPLE",
5     "enrolledlaptop": []
6 }
```

The bottom of the screen features a toolbar with various icons (Windows Start, Task View, File Explorer, etc.) and system status indicators (weather, battery, signal strength, date/time).

19. Find by customer name: /customername/{cname}

The screenshot shows the Postman application interface. The left sidebar is titled "Scratch Pad" and includes sections for Collections, APIs, Environments, Mock Servers, Monitors, and History. The main workspace has a yellow banner at the top stating "Working locally in Scratch Pad. Switch to a Workspace". Below this, a search bar says "Search Postman" and there are various status indicators and account links. A navigation bar at the top has buttons for Home, Workspaces, Explore, and a red "Create Account" button. The main area shows a GET request to "http://localhost:8889/customername/meena". The "Body" tab is selected, showing a JSON payload:

```
1 {  
2   "cemailid": "priya@gmail.com",  
3   "cmobileno": "9786532145",  
4   "caddress": "Mumbai",  
5   "customername": "PRIYA",  
6   "cPayAmount": "10000"  
7 }
```

The "Test Results" tab shows the response body:

```
1 {  
2   "cid": 3,  
3   "customername": "MEENA",  
4   "caddress": "Chennai",  
5   "cmobileno": "9677123434",  
6   "cemailid": "meena@gmail.com",  
7   "cPayAmount": 40000.0  
8 }
```

The bottom of the screen shows the Postman footer with icons for Find and Replace, Console, Runner, Trash, and help. It also displays system information like weather (87°F Haze), system tray icons, and a clock showing 7:51 PM on 9/20/2022.

20. Find by customer id: /customer/{cid}

The screenshot shows the Postman application interface. The top navigation bar includes Home, Workspaces, Explore, a search bar, and account options. The main area is titled "Working locally in Scratch Pad. Switch to a Workspace". On the left sidebar, under "Scratch Pad", there are tabs for Collections, APIs, Environments, Mock Servers, Monitors, and History. The "Collections" tab is selected. A "New Collection" button is visible. The central workspace displays a GET request to `http://localhost:8889/customer/2`. The "Body" tab is active, showing a JSON payload:

```
1
2   "cid": 2,
3   "customername": "SARAA",
4   "caddress": "Chennai",
5   "cmobileno": "9677717534",
6   "cemailid": "saraa@gmail.com",
7   "cPayAmount": 70000.0
```

The response section shows a 200 OK status with 17 ms latency and 292 B size. Below the response, there are tabs for Body, Cookies, Headers (5), and Test Results. The Body tab is active, displaying the same JSON data. The bottom of the screen features a toolbar with various icons and system status indicators.

21. Find by laptop id: /laptop/{lid}

The screenshot shows the Postman application interface. The top navigation bar includes Home, Workspaces, Explore, a search bar, and account options. The main area is titled "Working locally in Scratch Pad. Switch to a Workspace". On the left sidebar, "Scratch Pad" is selected, along with Collections, APIs, Environments, Mock Servers, Monitors, and History. A "New Collection" button is also present. The central workspace displays a GET request to `http://localhost:8889/laptop/3`. The request details show the method as GET, the URL as `http://localhost:8889/laptop/3`, and various tabs for Params, Authorization, Headers (8), Body (selected), Pre-request Script, Tests, and Settings. The Body tab contains JSON response data:

```
1 "lid": 3,  
2 "laptopname": "Lenovo ideapad 3",  
3 "lprocess": "Core i5",  
4 "lRAM": "16GB",  
5 "lStorage": "250GB",  
6 "lOS": "Windows 12",  
7 "lweight": "1.90KG",  
8 "lprice": 56000.0,  
9 "customer": null  
10  
11
```

The response status is 200 OK with 18 ms and 330 B. Below the response, there are tabs for Body, Cookies, Headers (5), and Test Results. The bottom of the screen features a toolbar with icons for Find and Replace, Console, Runner, Trash, and system status (87°F Haze, 7:37 PM, 9/20/2022, ENG US).

22. Ge Find by brand id: /brandid/{bid}

The screenshot shows the Postman application interface. The top navigation bar includes Home, Workspaces, Explore, a search bar, and account options. The main area is titled "Working locally in Scratch Pad. Switch to a Workspace".

The left sidebar has tabs for Collections, APIs, Environments, Mock Servers, Monitors, and History. The "Collections" tab is selected.

The central workspace shows a GET request to `http://localhost:8889/brandid/2`. The "Body" tab is selected, showing the following JSON payload:

```
1  {
2    ... "brandname": "HONOR"
3  }
```

The "Headers" tab shows 8 headers. The "Body" tab has "JSON" selected. The "Params", "Authorization", "Tests", and "Settings" tabs are also present.

The response section shows a 200 OK status with 39 ms and 214 B. The "Pretty" tab is selected in the response view, displaying the following JSON:

```
1  {
2    "bid": 2,
3    "brandname": "LENOVO",
4    "enrolledlaptop": []
5  }
```

At the bottom, there are "Find and Replace", "Console", and "Runner" buttons. The status bar at the bottom right shows the date (9/20/2022), time (7:25 PM), battery level (18%), and system information (ENG US).

23. Get Customer Total Amount :/customertotalpayamount

The screenshot shows the Postman application interface. On the left, there's a sidebar with icons for Collections, APIs, Environments, Mock Servers, Monitors, and History. The main area is titled "Scratch Pad" and shows a "Working locally in Scratch Pad. Switch to a Workspace" message. A "New Collection" button is visible. The URL bar contains "http://localhost:8889/customertotalpayamount". A "Send" button is highlighted in blue. Below the URL, there are tabs for Params, Authorization, Headers (8), Body (selected), Pre-request Script, Tests, and Settings. Under the Body tab, there are radio buttons for none, form-data, x-www-form-urlencoded, raw (selected), binary, GraphQL, and JSON. The JSON content is:

```
1  {
2    "cemailid": "priya@gmail.com",
3    "cmobileno": "9786532145",
4    "caddress": "Mumbai",
5    "customername": "PRIYA",
6    "cPayAmount": "10000"
7 }
```

Below the JSON content, the response section shows "Body" (selected), Cookies, Headers (5), and Test Results. The response status is 200 OK, 15 ms, 172 B. The response body is "170000.0". There are tabs for Pretty, Raw, Preview, Visualize, and JSON. At the bottom, there are icons for Find and Replace, Console, Runner, Trash, and a weather widget showing 87°F Haze. The system tray at the bottom right shows the date and time as 7:53 PM 9/20/2022, along with battery and signal icons.

24. Get Laptop Total Amount :/laptottotalprice

The screenshot shows the Postman application interface. The left sidebar contains navigation links: Home, Workspaces, Explore, Scratch Pad, Collections, APIs, Environments, Mock Servers, Monitors, and History. The main workspace is titled "Scratch Pad" and shows a recent item: "http://localhost:8889/laptottotalprice". A yellow banner at the top says "Working locally in Scratch Pad. Switch to a Workspace". Below the banner, there's a search bar and a toolbar with icons for various operations like PUT, GET, POST, and Runner. The main area displays a GET request to "http://localhost:8889/laptottotalprice". The "Body" tab is selected, showing a JSON response:

```
1 {"laptopname": "Lenovo ideapad 3",  
2     "lprocess": "Core i5",  
3     "lRAM": "16 GB",  
4     "lStorage": "250 GB".  
5 }
```

The response status is 200 OK, with 31 ms and 172 B. The "Pretty" tab is selected in the preview area, displaying the JSON as:

```
1 116000.0
```

The bottom of the screen shows a toolbar with icons for Find and Replace, Console, Runner, Trash, and a weather widget showing 87°F Haze. The system tray at the bottom right includes icons for battery, signal, volume, and date/time (7:45 PM, 9/20/2022).

25. Get Total Profit And Loss :/profitandloss

The screenshot shows the Postman application interface. The left sidebar has 'Collections' selected. The main area shows a 'Scratch Pad' with a single item: a GET request to `http://localhost:8889/profitandloss`. The 'Body' tab is selected, showing the JSON input:

```
1 | "cemailid": "priya@gmail.com",  
2 | ...
```

The response section shows a 200 OK status with 16 ms and 179 B. The response body is displayed as:

```
1 | Profit 54000.0
```

The bottom status bar shows the weather as 87°F Haze, system icons, and the date/time as 7:55 PM 9/20/2022.

Advantages And Disadvantages

□ Advantages:

- Duplication of the Laptops data is avoided.
- As laptop id is already stored in the master therefore human mistakes can be avoided Timely alerts ensure that penalties are avoided.

Conclusion

- Effectiveness, efficiency, and reliability are the key aspects that make this web-based Laptop shop management system very useful for industrial and several other businesses.

- The proposed project is very flexible to handle new modules and features as per user requirements in future.