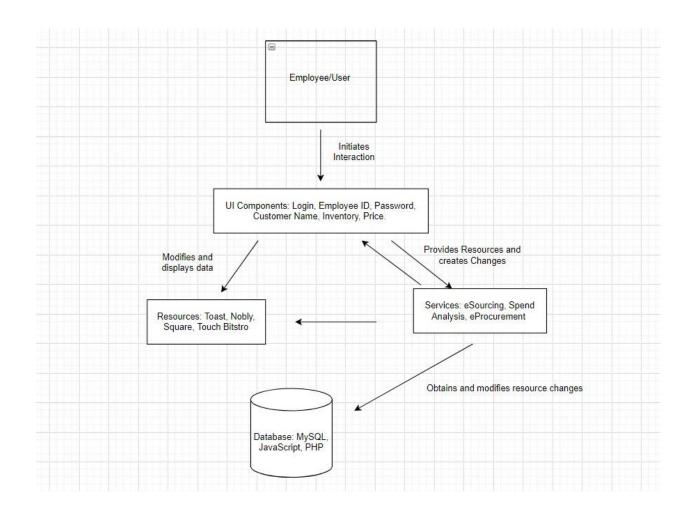
## Four Leaf Service Layer

I was able to create a blueprint diagram of the service layer and how I intend for it to work. This diagram includes the user/employee utilizing the UI components. When utilizing and modifying the components, it will respond to the services and resources. Everything will be updated and obtained in the database.



To create a user profile, the employee will use a POST request. Name and EmployeeID will be the required login credentials. The user will use a POST request to create customer profile as well. The user will then use a GET method to acquire the customer's purchase history. The POST method will then be used when the customer purchases an item. Finally PUT will be used to update inventory and customer's purchase history. As astretch feature I would utilize GET to count the remaining inventory available in the system. And I would use PUT to update the inventory count after every purchase.

| Endpoint      | Operation/Data                    | Request Type | Request   | Response  | Purpose                               |
|---------------|-----------------------------------|--------------|---|---|---------------------------------------|
| Data          | ·                                 |              |   |   |                                       |
|               | name/employee ID                  | GET          | /user/login                                     | Login { 'success' boolean message string }  | Logs the user into the system         |
|               | required field check              | GET          | /app/validate                                   | Validate { 'success' bolean message string }  | The required fields are populated     |
|               | ERROR wrong requirements          | GET          | /app/validate/ERROR                             | Error { 'Failed' Enter Requirements boolean message string }  | Re-enter suggested requirements       |
| Data Creation | 1                                 |              |   |   |                                       |
|               | create user                       | POST         | /user/create                                    | CreateUser { success boolean message string }   | Creates the user with employee ID     |
|               | create customer profile           | POST         | /user/customerprofile                           | CreateCustomerProfile { success boolean message string }  | Creates customer profile with name    |
|               | item purchase                     | POST         | /user/customerprofile/itemp<br>urchase          | CreateItemPurchaseHistory { success boolean message string }  | Create record of item purchase        |
|               | history log record                | POST         | /user/customerprofile/histor<br>y/create        | CreateHistoryLog { success boolean message string }   | Creates history of customer purchases |
| Data Update   |                                   |              |   |   |                                       |
|               | inventory update                  | PUT          | /user/inventory/update                          | UpdateInventory { quantity item puchase integer }   | Update inventory data                 |
|               | inventory count                   | PUT          | /user/inventory/count                           | CountInventory { quantity items remain integer }  | Update Count remaining inventory data |
|               | history log record                | PUT          | /user/customerprofile/histor<br>y/update        | UpdateCustomerHistory { success boolean message string }  | Update history log                    |
| Data          |                                   |              |   |   |                                       |
|               | customer profile data             | GET          | /user/customerprofile/purch<br>asehistory       | GetCustomerData { UserID: integer,<br>CustomerID: integer, Name: string<br>Email: string, Purchase History: string<br>}                             | Get's the customer profile data       |
|               | relationships based on<br>history | GET          | /user/customerprofile/histor<br>y/relationships | GetCustomerProfileRelationship {<br>UserID: integer, CustomerID: integer,<br>Employee ID: integer, Purchase<br>history: string, Inventory: integer} | Gets the customer's relationship data |
|               | history log record                | GET          | /user/customerprofile/histor<br>y               | GetCustomerHistory / HearID:  | Gets customer Profile<br>history      |
|               | inventory count data              | GET          | /user/invenotry/count                           | GetCountinventory { UserID: integer,<br>History: string, Purchase item: string,<br>inventory count: integer}  | Gets inventory remaining count        |