


Project Development Phase

Sprint – 4

Team ID	PNT2022TMID14045
Project Name	Personal Expense Tracker Application

Edit Income Page:

 Personal Expense Tracker

Home Expense Analysis Income Analysis Profile

Show Income

Income Date

11-11-2022

Income Category

Salary

Income Note


salary

Income Budget

1000

BackUpdate

Edit Expense Page:

 Personal Expense Tracker

Home Expense Analysis Income Analysis Profile

Show Expense

Expense Date

12-11-2022

Expense Category

Fuel

Expense Note

fuel sample

Expense Budget

200

BackUpdate

Code:

Base file - *HomeBase.html*

```
templates > HomeBase.html > ...
33
34 <!--Navbar -->
35 <nav class="navbar navbar-expand-lg navbar-light d-none d-md-block bg-light fixed-top">
36   <div class="container-md">
37     <a class="navbar-brand" href="/dashboard">
38       <span class="fw-bold">Personal Expense Tracker</span>
40     </a>
41     <button class="navbar-toggler" type="button" data-bs-toggle="collapse" data-bs-target="#navbarNavAltMarkup"
42       aria-controls="navbarNavAltMarkup" aria-expanded="false" aria-label="Toggle navigation">
43       <span class="navbar-toggler-icon"></span>
44     </button>
45     <div class="collapse navbar-collapse" id="navbarNavAltMarkup">
46       <div class="navbar-nav ms-auto">
47         <a class="nav-link active" href="/dashboard">Home</a>
48         <a class="nav-link" href="/expenseanalysis">Expense Analysis</a>
49         <a class="nav-link" href="/incomeanalysis">Income Analysis</a>
50         <a class="nav-link" href="/profile">Profile</a>
51       </div>
52     </div>
53   </div>
54 </nav>
55 <!-- End of Navbar -->
56
57 <!-- Bottom Navbar -->
58 <nav class="navbar navbar-light bg-light border-top navbar-expand d-md-none d-lg-none d-xl-none fixed-bottom">
59   <ul class="navbar-nav nav-justified w-100">
60     <li class="nav-item">
61       <a href="/dashboard" class="nav-link active">
62         <span>
63           <i class="fas fa-home"></i>
64         </span>
65       </a>
66     </li>
67     <li class="nav-item">
68       <a href="/expenseanalysis" class="nav-link">
69         <span>
```

Show & Update Analysis – *Show_Income.html*

```
templates > Show_Income.html > ...
29
30 </div>
31 <div class="mb-3">
32   <label for="category_income" class="form-label">Income Category</label>
33   <select class="form-select" id="category_income" name="category_income">
34     <option value="Salary,salary-id" {% if data.INCOMECATEGORY=="Salary" %} selected="selected"{% endif %}>Salary</option>
35     <option value="Profit,profit-id" {% if data.INCOMECATEGORY=="Profit" %} selected="selected"{% endif %}>Profit</option>
36     <option value="Bonus,bonus-id" {% if data.INCOMECATEGORY=="Bonus" %} selected="selected"{% endif %}>Bonus</option>
37     <option value="Other,other-id" {% if data.INCOMECATEGORY=="Other" %} selected="selected"{% endif %}>Other</option>
38   </select>
39 </div>
40 <div class="mb-3">
41   <label for="note_income" class="form-label">Income Note</label>
42   <textarea class="form-control" id="note_income" name="note_income" rows="3"
43     required>{{data.INCOMENOTE}}</textarea>
44 </div>
45 <div class="mb-3">
46   <label for="budget_income" class="form-label">Income Budget</label>
47   <input type="number" value="{{data.INCOMEAMOUNT}}" class="form-control" id="budget_income" name="budget_income"
48     required>
49 </div>
50 <div class="row">
51   <div class="col">
52     <div class="d-grid gap-2">
53       <a href="/dashboard" class="btn btn-light">Back</a>
54     </div>
55   <div class="col">
56     <div class="d-grid gap-2">
57       <button class="btn btn-success" type="submit" name="submit">Update</button>
58     </div>
59   </div>
60 </div>
61 </form>
62 </div>
63 </div>
64 </div>
65 </div>
```

Show & Update Expense – [Show_Expense.html](#)

```
templates > Show_Expense.html > ...
12
13 <div class="col-x1-6 mt-5 mb-5">
14   <div class="justify-content-center text-center">
15     {%if error %}
16     <p style="color: red;">{{error}}</p>
17     {%endif %}
18   </div>
19   <div class="card">
20     <div class="card-body">
21       <h3 class="card-title">Show Expense</h3>
22       <form class="mt-3" action="" action="{{url_for('updateexpense')}}" method="post">
23         <input type="hidden" value="{{data.EXPENSEID}}" name="expenseid">
24         <input type="hidden" value="{{data.CATEGORYNAME}}" name="catid">
25         <div class="mb-3">
26           <label for="date_expense" class="form-label">Expense Date</label>
27           <input type="date" value="{{data.EXPENSEDATE}}" class="form-control" id="date_expense" name="date_expense" required>
28         </div>
29         <div class="mb-3">
30           <label for="category_expense" class="form-label">Expense Category</label>
31           <select class="form-select" id="category_expense" name="category_expense">
32             <option value="Entertainment, movie-id" {% if data.EXPENSECATEGORY=="Entertainment" %} selected="selected" {%endif %}>Entertainment
33             <option value="Food, food-id" {% if data.EXPENSECATEGORY=="Food" %} selected="selected" {%endif %}>Food
34             <option value="Fuel, fuel-id" {% if data.EXPENSECATEGORY=="Fuel" %} selected="selected" {%endif %}>Fuel
35             <option value="other, other-id" {% if data.EXPENSECATEGORY=="Other" %} selected="selected" {%endif %}>Other
36           </select>
37         </div>
38         <div class="mb-3">
39           <label for="note_expense" class="form-label">Expense Note</label>
40           <textarea class="form-control" id="note_expense" name="note_expense" rows="3" required="{{data.EXPENSENOTE}}"></textarea>
41         </div>
42         <div class="mb-3">
43           <label for="budget_expense" class="form-label">Expense Budget</label>
44           <input type="number" value="{{data.EXPENSEAMOUNT}}" class="form-control" id="budget_expense" name="budget_expense" required>
45         </div>
46       </form>
47     </div>
48   </div>
</div>
```

Backend file – [connect.py](#)

```
connection > connect.py > getexpensevalues
1 import ibm_db
2 from flask import session
3
4 def Connection():
5     try:
6         conn = ibm_db.connect("DATABASE=bludb;HOSTNAME=21fecfd8-47b7-4937-840d-d791d0218660.bs2io90l08kqb1od8l1cg.databases.appdomain.com;UID=dbadmin;PWD=dbadmin")
7         print("Database Connected Successfully !")
8         return conn
9     except:
10        print("Unable to connect: ", ibm_db.conn_errormsg())
11
12 def getincomevalues(id,conn):
13     sql = "SELECT * FROM INCOME WHERE INCOMEID = '"+id+"'"
14     lis={}
15     try:
16         stmt = ibm_db.exec_immediate(conn, sql)
17         dictionary = ibm_db.fetch_both(stmt)
18         # print(dictionary)
19         while dictionary!=False:
20             lis=dictionary
21             dictionary = False
22             print("income value got successfully !")
23     except:
24         print("Error while get the income value")
25     return lis
26
27 def getexpensevalues(id,conn):
28     sql = "SELECT * FROM EXPENSE WHERE EXPENSEID = '"+id+"'"
29     lis={}
30     try:
31         stmt = ibm_db.exec_immediate(conn, sql)
32         dictionary = ibm_db.fetch_both(stmt)
33         while dictionary!=False:
34             lis=dictionary
35             dictionary = False
36             print("expense value got successfully !")
37     except:
```

Docker file

```
Dockerfile > ...
1 FROM python:latest
2 WORKDIR /app
3 COPY requirements.txt ./
4 RUN pip install -r requirements.txt
5 COPY . .
6 EXPOSE 5000
7 CMD ["python", "./app.py"]
```

Requirements.txt

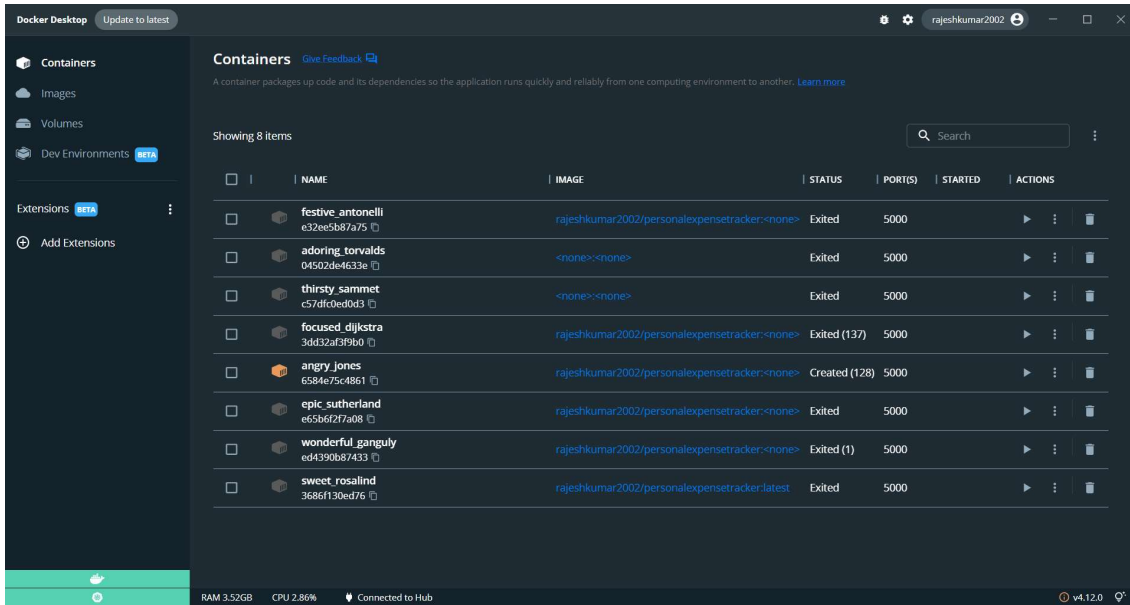
```
requirements.txt
1 flask
2 ibm_db
3 sendgrid
4 flask_session
```

Kubernetes - *Kubernetes.yaml*

```
! kubernetes.yaml
1  apiVersion: apps/v1
2  kind: Deployment
3  metadata:
4    name: flask-app
5
6  spec:
7    replicas: 3
8    selector:
9      matchLabels:
10       app: flask-app
11  template:
12    metadata:
13      labels:
14       app: flask-app
15
16    spec:
17      containers:
18        - name: repo2
19          image: docker.io/rajeshkumar2002/personalexpensetracker
20          ports:
21            - containerPort: 5000
22              protocol: TCP
```

Docker :

Docker Desktop:



Docker – Personal Expense Tracker:

The screenshot shows the Docker Hub page for the repository 'rajeshkumar2002/personalexpensetracker'. The page includes a description section, a 'Tags and scans' table, and an 'Automated Builds' section.

Repository: rajeshkumar2002 / personalexpensetracker

Description: This repository does not have a description. Last pushed: 3 hours ago.

Tags and scans: This repository contains 1 tag(s). VULNERABILITY SCANNING - DISABLED (Enable)

Tag	OS	Type	Pulled	Pushed
latest	linux	Image	—	3 hours ago

[See all](#) [Go to Advanced Image Management](#)

Automated Builds: Manually pushing images to Hub? Connect your account to GitHub or Bitbucket to automatically build and tag new images whenever your code is updated, so you can focus your time on creating. Available with Pro, Team and Business subscriptions. [Upgrade](#) [Learn more](#)

README: Repository description is empty. Click [here](#) to edit.

IBM Kubernetes:

The screenshot shows the IBM Cloud Kubernetes dashboard for the cluster 'nalaiyathitan-v1'. The dashboard includes a sidebar with navigation options, a main content area with a warning banner, and a details section.

Cluster: nalaiyathitan-v1 (Normal, Expires in 29 days, Add tags)

Overview:

- Node status: 1 of 1 (Normal)
- Add-on status: 0 of 0 (Normal)
- Master status: Normal
- Ingress status: Healthy

Details:

Cluster ID	Version	Infrastructure	Zones
cdqbp66f8dqqde4171p0	1.24.7_1542	Classic	Milan 01

Node health: 11/16/2022, 4:04 PM. Resource group: Default. Image security enforcement: [Enable](#)

Kubernetes Shell:

IBM Cloud Shell

Location: Dallas Change

Session 1

Current account: Rajeshkumar S's Account

Welcome to IBM Cloud Shell!
 Image version: 1.0.68
 Note: Your Cloud Shell session is running in Dallas (us-south). Your workspace includes 500 MB of temporary storage. This session will close after an hour of inactivity. If you don't have any active sessions for an hour or you reach the 50-hour weekly usage limit, your workspace data is removed. To track your usage, go to [Usage quota](#) in the Cloud Shell menu.
 Tip: Enter 'ibmcloud' to use the IBM Cloud CLI. The Dallas (us-south) region is targeted by default. You can switch the region by running 'ibmcloud target -r <region-name>'.
 rk516677@cloudshell:~\$ ibmcloud ks cluster config -c cdqbp66f0dqqde417ip0
 OK
 The configuration for cdqbp66f0dqqde417ip0 was downloaded successfully.
 Added content for cdqbp66f0dqqde417ip0 to the current kubeconfig file.
 You can now execute 'kubectl' commands against your cluster. For example, run 'kubectl get nodes'.
 If you are accessing the cluster for the first time, 'kubectl' commands might fail for a few seconds while RBAC synchronizes.
 rk516677@cloudshell:~\$ kubectl get nodes
 NAME STATUS ROLES AGE VERSION
 10.144.180.20 Ready <none> 21h v1.24.7-iks
 rk516677@cloudshell:~\$ kubectl apply -f https://raw.githubusercontent.com/Rajeshkumar02/Deploy/main/3.yaml
 deployment.apps/flask-app created
 rk516677@cloudshell:~\$ ibmcloud cs workers --cluster cdqbp66f0dqqde417ip0
 OK

ID	Public IP	Private IP	Flavor	State	Status	Zone	Version
node-cdqbp66f0dqqde417ip0-nalatyshit-default-0000000f4	169.51.194.34	10.144.180.20	free	normal	Ready	ml01	1.24.7_1543

 rk516677@cloudshell:~\$ kubectl describe flask-app | grep NodePort
 error: the server doesn't have a resource type "flask-app"
 rk516677@cloudshell:~\$ kubectl describe service flask-app | grep NodePort
 error: from server (Not found): services "flask-app" not found
 rk516677@cloudshell:~\$ kubectl expose deployment flask-app --port=5000 --target-port=5000 --type=LoadBalancer
 service/flask-app exposed
 rk516677@cloudshell:~\$ kubectl describe service flask-app | grep NodePort
 NodePort: <unset> 31794/TCP
 Warning CreatingCloudLoadBalancerfailed 8s (x2 over 13s) ibm-cloud-provider Error on cloud load balancer a3ad3969996d48a29a1ebcb8044112 for service default/flask-app with UID 3ad39699-996d-48a2-9a1e-ebcb80441124: Failed to get available cloud provider IPs for load balancer services: Clusters with one node must use services of type **NodePort**. See https://ibm.biz/ib-debug(IKS) or https://ibm.biz/oc-lb-debug (Openshift) for more details.
 Warning SyncLoadBalancerfailed 8s (x2 over 13s) service-controller Error syncing load balancer: failed to ensure load balancer: Error on cloud load balancer a3ad3969996d48a29a1ebcb8044112 for service default/flask-app with UID 3ad39699-996d-48a2-9a1e-ebcb80441124: Failed to get available cloud provider IPs for load balancer services: Clusters with one node must use services of type **NodePort**. See https://ibm.biz/ib-debug(IKS) or https://ibm.biz/oc-lb-debug (Openshift) for more details.
 rk516677@cloudshell:~\$

Kubernetes Dashboard:

kubernetess
 default
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 +
 🔔
 👤

Workloads
 Deployments
 Cron Jobs
 Daemon Sets
 Deployments
 Jobs
 Pods
 Replica Sets
 Replication Controllers
 Stateful Sets
 Service
 Ingresses
 Ingress Classes
 Services
 Config and Storage
 Config Maps
 Persistent Volume Claims

Deployments
 Pods
 Replica Sets

Name	Images	Labels	Pods	Created ↑
flask-app	Show all	-	3 / 3	14 minutes ago

Name	Images	Labels	Node	Status	Restarts	CPU Usage (cores)	Memory Usage (bytes)	Created ↑
flask-app-cbd9597c4-442d	Show all	Show all	10.144.180.20	Running	0	28.00m	66.10Mi	14 minutes ago
flask-app-cbd9597c4-k7wsn	Show all	Show all	10.144.180.20	Running	0	29.00m	66.30Mi	14 minutes ago
flask-app-cbd9597c4-qp5pw	Show all	Show all	10.144.180.20	Running	0	27.00m	66.55Mi	14 minutes ago

Replica Sets
 Pods

Name	Images	Labels	Pods	Created ↑
flask-app-cbd9597c4	Show all	Show all	3 / 3	14 minutes ago

<https://eu-de.containers.cloud.ibm.com/kubeprow/clusters/cdqbp66f0dqqde417ip0/service/#/pod/default/flask-app-cbd9597c4-k7wsn/namespaces/default>

http://169.51.194.34:31794/

Hosted Application:

← → 🔍 Not secure | 169.51.194.34:31794/dashboard

Apps Gmail YouTube Translate Icon placement Project Idea CALYXPOD Android Kotlin Bas... Nalaya Thiran Maps Containerize an ap...

Personal Expense Tracker

Home Expense Analysis Income Analysis Profile

Welcome 19cs124

My Balance

IDR 2300

Income

⬆ IDR 3650

Expense

⬇ IDR 1350

Incomes

Salary

2022-11-11

IDR 1000

Delete

Other

2022-11-14

IDR 200

Delete

Profit

2022-11-12

IDR 2000

Delete

Other

2022-11-14

IDR 450

Delete

View all income