

Performance Metrics

Date	03 November 2022
Team ID	PNT2022TMID53191
Project Name	Project – Personal Expense Tracker
Maximum Marks	4 Marks

Application Performance Metrics

Error rates :

This is the term that describes the degree of errors encountered during data transmission over a communication or network connection. The higher the error rate, the lower the reliability of the connection or data transfer. A 3rd party tool called new relic was used for this.

The error rate for the application Ledger is as mentioned below:

Call to obtain error

```
curl -X GET "https://api.newrelic.com/v2/applications/$APP_ID/metrics/data.xml" \
-H "Api-Key:$API_KEY" -i \
-d 'names[]=Errors/-
all&values[]=error_count&from=2022-11-17T00:00:00+00:00&to=2022-11-18T23:35:00+00:00&summarize=true'
```

Output from error count call

```

{
  "metric_data": {
    "from": "2022-11-17T00:00:00+00:00",
    "metrics": [
      {
        "name": "Errors/all",
        "timeslices": [
          {
            "from": "2022-11-17T00:35:00+00:00",
            "to": "2022-11-18T23:35:00+00:00",
            "values": {
              "error_count": 5
            }
          }
        ]
      }
    ]
  },
  "metrics_found": [
    "Errors/all"
  ],
  "metrics_not_found": [],
  "to": "2022-11-18T23:35:00+00:00"
}

```

Response times:

Response time is the total amount of time it takes to respond to a request for service. An online tool named Site24*7 was used to test the response time of the API endpoints.

Method	Rest API Endpoint	User-Agent ⓘ
GET ▾	http://ledger.com/expense	None ▾
Test Location		
Mumbai - IN ▾		
Custom Headers ⓘ		
<input type="radio"/> Yes <input checked="" type="radio"/> No		
Content Check ⓘ		
<input type="radio"/> Yes <input checked="" type="radio"/> No		
<input type="button" value="Test Again"/>		

107 ms	2 ms	69 ms	338 ms	353 ms	531 ms
DNS Time	Connection Time	SSLHandshake Time ⓘ	FirstByte Time	LastByte Time	Response Time

Request Rates:

A rate is the number of API calls an app or user can make within a given time period. We can approximately calculate the request rates by identifying the number of times the database has been accessed. The request rate for the application "Ledger" is:

TPS	0.0011
Index hit rate	92.2%
Cache hit rate	96.9%

Customer experience :

The application starts with collecting registration details and then takes into the login page. Once, after logging in with username and password, I can set the monthly budget limit in the budgets tab's page. Following that I am able to add my daily expenditure report in the form of the amount of money used, reason/purpose of use and also the category of expenditure that it falls under. There are nine exhaustive categories to choose from. The expenditure reports are skillfully displayed with a line graph and bar graph and hence are very easy to understand and refer to. The application is also customisable with different themes and also permits changing passwords. One area to improve is the number of themes available for customisation and other add on features to make it more attractive to the user. Another major drawback is that, though the application takes in the monthly budget, it doesn't indicate when the expenses outrun the budget. If there was an alert system in place for this it will be more helpful. Besides this there are no provisions for group money management to highlight about the expenditure to be shared among the members of this group. If these issues are addressed it will make this wonderful application even better.