PES UNIVERSITY

Department of Computer Science & Engineering

UE17CS355 – Web Tech II Laboratory

Project Evaluation

Project Title : The Billing System

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Project Description

The Billing System:

User can have register with our website, and upload their bill details and get a scoring on whether they have a “good”, “bad” or “worse” bill paying features.

Technologies Used

Webframeworks for frontend and backend is used.

FRONTEND:

- reactjs frontend framework
- redux state management
- react-C3JS D3 based graph tool
- data-ui react data visualization tool

BACKEND:

- django backend framework
- django-rest-knox authentication library
- djangorestframework restful framework
- sklearn machine learning tool

Techniques Implemented

1. Token based authentication with Knox: is an efficient library that offers models and views of authentication in a more secure way. Provides per client token and appropriate delete tokens options.

2. Axios: In react when we use external apis, instead of using Javascript's fetch, we use axios which can handle HTTP requests and responses in a better way.

3. REST API's: REST APIs are based on URIs (uniform resource identifier) and the HTTP protocol. REST APIs can exchange data in JSON which we have used in the project to communicate between django and react.

Intelligent Functionality

Uses Clustering Algorithm (K-Means) to classify the expenditures made by the user.

- The clustering algorithm clusters the expenditures into 3 clusters.
- The clustering algorithm classifies the users expenditure into “good”, ”bad” and “worse”, based on his salary and the gap between the payment month and due month.
- This clustering helps the user to keep track of how each expenditure made is going to affect his/her financial aspect.

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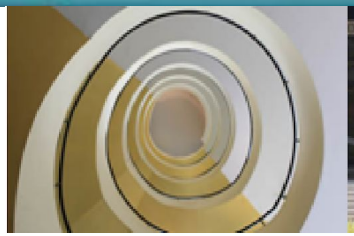

Thank You