Prem Kumar

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About Me :-

An optimistic, quick learning , analytical , hard-working and result-oriented individual with good critical thinking and problem solving skills.

Projects :-

- **Flight Ticket Booking REST API**   **API Link Api docs Code**
  Tech/Tools Used **: Django, Ngrok, Django Rest Framework(DRF), Celery , Docker, Postgres, Git, Pytest, Postman, Redis (Caching, Broker and Backend)**

  - **DRF** based **Dockerized RESTful API** for **3 step** flights ticket booking (one-way/round-trip) with **endpoints** for registering, logging-in, logging-out, searching flights with 12+ filters, booking, payments with stripe integration and **features** like applying coupons, cancellations, refunds, and **celery** based ticket and refund **PDF** generation
  - **Reduced** pdf generation **response timings by >70%** by moving webhook handling logic to the app itself rather than separate flask endpoint
  - **Load test** using **locust** about **1000+ celery pdf tasks** at peak and add feature of **rate-limiting/throttling** pdf generation requests for **free tier** users up to **300 pdfs/second** by writing custom global rate limiter using **redis locks** and Generic Cell Rate Algorithm (**GCRA**) as limiting algorithm.

- **Lightweight Gmail like Web-App**   **View web-app   Github**
  Tech/Tools Used **: Django , Postgres, Redis (broker), Celery , Html, CSS, Javascript, jQuery, Bootstrap (frontend)**

  - Gmail like web-app that let users **compose** and **send** emails (with **cc/bcc** enabled) , receive it in their **inbox**, **reply** and **reply all** , **forward** , **delete** and **archive** emails
  - Use **Celery** as a task queue to **schedule sending** emails at custom time , also use a hybrid **approach** of db (**postgres**) and broker (**redis**) to catch-up on **pending** emails if the server **goes down** during the period.
  - Allow users to send **multiple attachments** with their emails and use **HTTP_REFERER header** to **switch back** to the inbox page from the email details page.

Programming skills -

- **Language :-** C/C++, Python3, Golang, Javascript, Dart, Html/CSS (Flexbox and Grid), MySql , Bash

- **Tools/Frameworks/Databases :-** Git, Django, Docker, Flutter, Bootstrap, MySql/Postgres/SQLite3 , AWS (EC2, S3, Lambda, Cloudwatch), REST APIs (Django Rest Framework), Shell Commands (grep, awk, sed, regex etc.), SSH , SSL Certificates (LetsEncrypt), Heroku , Digital Ocean, Redis, Celery

Education :-

- **College:** MITAOE, Alandi , Pune , **62.32 %** (August 2014 - October 2020)
- **12th (C.B.S.E)** : DAV PUBLIC SCHOOL - **80.2%** (April 2012)
- **10th (C.B.S.E)** : Manav Bharti National School - **93%** (April 2010)