

Project

Project

- Teams of up to 3
- Register your teams by Feb. 6, 2022
- A form has been shared
- Requirements: there needs to be a front-end, accessible by browser. The backend is PostgreSQL 14. —
 - Use Flask (basic) for frontend —
 - Full SQL queries are expected
- Evaluation
 - Report submission (outline will be given)
 - Demo (10 min. video)
 - Q/A session ←

Ideas (1 / 2)

- ~~Amazon -- buy and sell books second hand~~
- Ebay -- auctioning items
- Twitter -- create profile, tweeting, retweeting, following
- Facebook
- Course management system (managing student lists, assignments, updating grades, etc.)
- ~~Library management system~~
- Research papers database (DBLP)
- ~~Movie Database (IMDB) (ratings, etc. could be included)~~

Ideas for projects (2/2)

- ~~Sports DB — cricket, football, etc.Indian~~
 - Government's open data at `data.gov.in`
 - Linked Open Data at <https://lod-cloud.net>
 - COVID datasets
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Requirements

- At least 4-5 tables
- At least 1000's of tuples
 - Larger the dataset, more is it appreciated
 - You will have to find real data. No synthetic data.
 - Not just a “searchable” dataset. Application should involve updates.
- **Milestone 1:**
 - Submit an outline of your project, get it approved
 - Due: **Feb. 6, 2022**
 - Deadline to finalize: Feb. 9, 2022
- ***Project due:*** **Mar. 1, 2022 (11.55pm)**

Do's and Don'ts

- **DO USE** as many features of the DB as possible
 - Anything is allowed, as long as PostgreSQL 13 supports it (no extensions)
 - Demonstrate your knowledge of *views, triggers, indexes, etc.*
 - These have to be *meaningful* – if it doesn't make sense to use these, then you don't get marks!
- **DO NOT** use datasets that are “difficult”
 - Do not scrape, use ready-made data
 - Do not use noisy data, ensure the data is *as clean as possible!*

Datalog

- Evaluation of ^{recursive} Datalog queries
 - least fixed-point evaluation
 - Negation & recursion
 - Uniqueness of LFP

R, P, Q

Indexes, Views, Triggers, constraints

B⁺ tree



