

# AI BASED DATA GENESIS SYSTEM

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**Project: AI based Data Genesis System**

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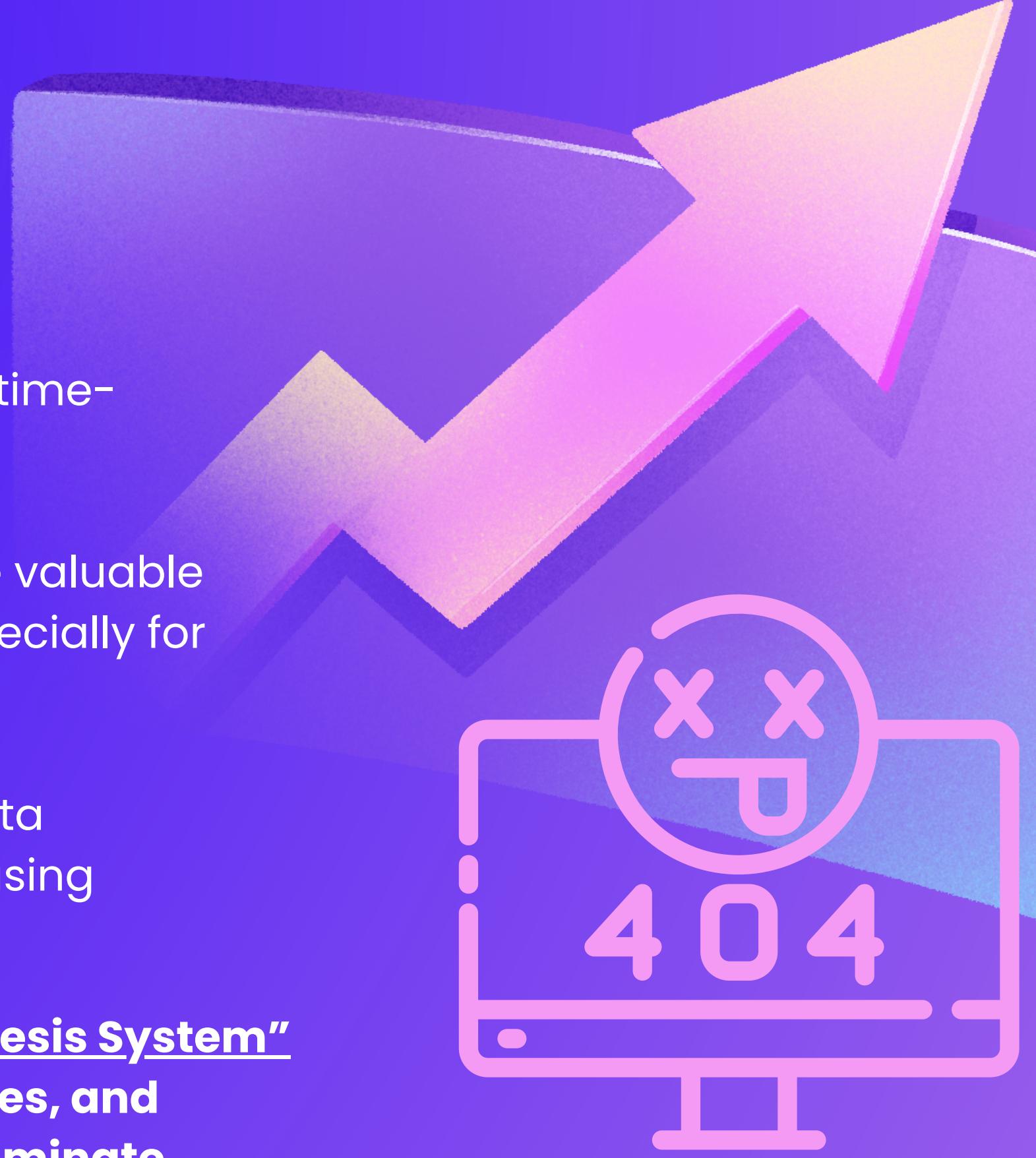
# PROBLEM STATEMENT

Creating and populating databases with realistic data can be a time-consuming and tedious task.

Manual database setup, table creation, and data entry consume valuable development time and introduce inconsistencies and errors, especially for large and complex databases.

In addition to these challenges, various domains, including AI, data analysis, and other critical areas, face specific issues related to using realistic data.

**To address these problems, We present the "AI Based Data Genesis System" that allows users to define database names, and table structures, and automatically populate them with realistic data entries and eliminate inconsistencies.**



# MENTOR'S SUGGESTION

- Integration with AI Innovation
- SQL File creation
- Timeseries data generation
- Schema creation
- Customizable Realistic Data Generation
- Faker Library

# UPDATED PROPOSED SOLUTION

## AI BASED DATA GENESIS SYSTEM



AI Based Data Genesis System is a tool that is designed to automate the process of database creation and management .



This project solves the problem of manually creating realistic timeseries data entries.



This can save developers time and effort, and it can also help to reduce the risk of errors and inconsistencies.



Anyone who needs to create databases immediately with realistic (real world) data can use it very efficiently.

# WORKFLOW:-

01

**This System will allow users to specify the database name, table structure, and desired data types.**

02

**The generator will then generates realistic data for each table, based on the user's specifications.**

03

**It could also be configured to generate more specific data, such as names, city names, colors, ages, contacts, addresses, and many more.**

04

**The data that is generated can be realistic or unrealistic, depending on the input prompt.**

# PROTOTYPE

**HOME PAGE :--**

## Create Database Tables

Database Name:

Number of Tables:

**Create Tables**

PRAYATNA\_af9300c11caf4797859ecc678fab4b9d

# PROTOTYPE

## TABLE CREATION PAGE :--

### Enter Table Details

#### Table 1

Table Name:

Enter Table Name MySQL.

Column Details:

columnName:datatype(size):primary key (or other)constraints

For Eg: student\_id:int:primary key, student\_name:varchar(20):not null, city:varchar(20):not null

#### Table 2

Table Name:

Enter Table Name MySQL.

Column Details:

columnName:datatype(size):primary key (or other)constraints

For Eg: student\_id:int:primary key, student\_name:varchar(20):not null, city:varchar(20):not null

Submit Tables Detail

# PROTOTYPE

SUCCESS PAGE :--

**Table Creation Result**

---

**Table 1 : rr**  
Table already exists.

**Table 2 : qwqw**  
Table already exists.

[click here to download schema](#)

# FEATURES



# CULTURALLY DIVERSE DATA



WHEN HR ASKS YOU TO BE

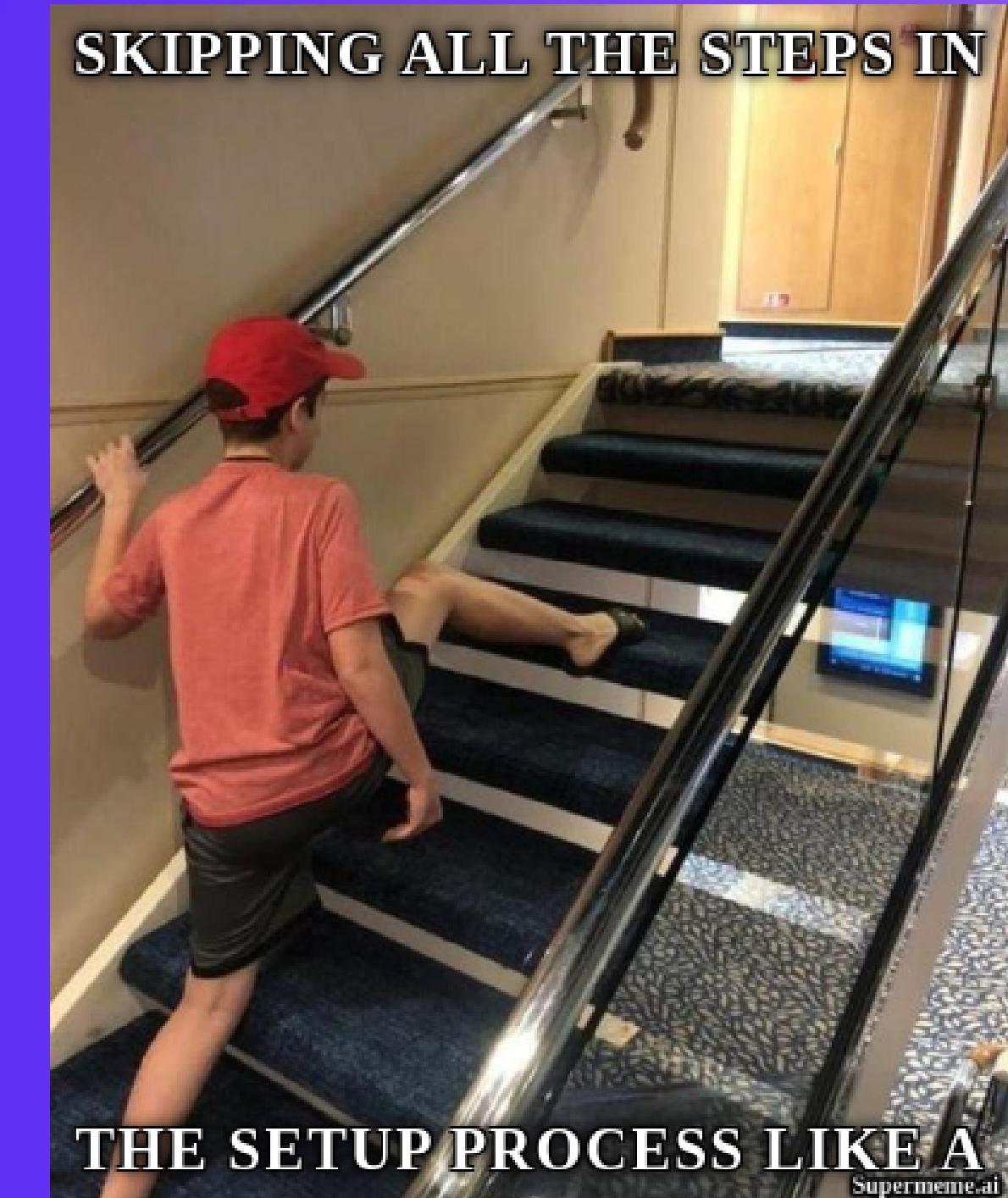
AN EXPERT IN ALL CULTURAL DATA

Supermeme.ai

GENERATION OF  
CULTURALLY SPECIFIC  
DATA, SUCH AS  
INDIAN, AMERICAN  
ETC TO CATER TO  
DIVERSE DEMOGRAPHIC  
NEEDS.

# TAKE CONTROL OF YOUR DATA ARCHITECTURE

AFTER CREATING AND POPULATING YOUR DATABASE, EFFORTLESSLY DOWNLOAD YOUR SCHEMA, FACILITATING SEAMLESS INTEGRATION AND ENSURING COMPLETE CONTROL OVER YOUR DATA ARCHITECTURE.



# ROBUST DATABASE TESTING

WHEN YOUR CODE MAGICALLY  
CREATES A



ELIMINATE MANUAL  
CREATION DEPENDENCY,  
EMPOWERING ANY  
INDUSTRY TO VALIDATE  
EXISTING DATABASE  
SCHEMAS WITH EASE.

Supermeme.ai

# DYNAMIC DATA GENERATION FOR REAL-WORLD TRENDS

GENERATION OF DYNAMIC TIME-SERIES DATA, EMPOWERING USERS TO SIMULATE REAL-WORLD TEMPORAL TRENDS AND PATTERNS WITH EASE.



# USECASES





# HOSPITAL MANAGEMENT

In hospital management, our Automated Robust Database Testing feature streamlines schema validation, ensuring accurate patient records and treatment plans. By eliminating manual creation dependencies, it enhances operational efficiency and regulatory compliance.

patient_id	patient_name	DOB	gender	address	mobile_number	doctor_id	doctor_name	timestamp
1	Rajesh Kumar	1985-07-15	Male	123, ABC Street, New Delhi	9876543210	101	Dr. Gupta	2022-10-31 15:30:00
2	Priya Sharma	1990-03-25	Female	456, XYZ Road, Mumbai	8765432109	102	Dr. Patel	2022-10-31 15:31:00
3	Amit Singh	1978-11-10	Male	789, PQR Lane, Bangalore	7654321098	103	Dr. Reddy	2022-10-31 15:32:00
4	Sunita Verma	1982-05-20	Female	321, LMN Avenue, Kolkata	6543210987	104	Dr. Sharma	2022-10-31 15:33:00
5	Vikram Malhotra	1995-09-30	Male	654, UVW Colony, Chennai	5432109876	105	Dr. Khan	2022-10-31 15:34:00
6	Anjali Gupta	1989-01-05	Female	987, RST Nagar, Hyderabad	4321098765	106	Dr. Singh	2022-10-31 15:35:00
7	Rahul Sharma	1975-12-12	Male	741, GHI Street, Pune	3210987654	107	Dr. Verma	2022-10-31 15:36:00
8	Neha Reddy	1987-04-18	Female	147, JKL Road, Ahmedabad	2109876543	108	Dr. Malhotra	2022-10-31 15:37:00
9	Sanjay Patel	1980-08-08	Male	963, OPQ Lane, Jaipur	1098765432	109	Dr. Sharma	2022-10-31 15:38:00
10	Pooja Khan	1992-06-28	Female	369, EFG Avenue, Chandigarh	0987654321	110	Dr. Gupta	2022-10-31 15:39:00



## NEWSPAPER AGENCY

For newspaper agencies, our Automated Robust Database Testing feature ensures efficient schema validation, guaranteeing accuracy in article archives and subscriber data. By eliminating manual creation dependencies, it enhances operational efficiency and ensures regulatory compliance.

newspaper_id	newspaper_name	article_id	article_title	article_author	news_type	timestamp
1	The Times of India	TOI123	Indian Economy Growth	Rajesh Sharma	Economic News	2022-10-31 08:30:00
2	The Hindu	TH456	Political Unrest in Kashmir	Anjali Singh	Political News	2022-10-31 08:35:00
3	Dainik Bhaskar	DB789	Cultural Festivals of India	Amit Verma	Cultural News	2022-10-31 08:40:00
4	Indian Express	IE101	Technology Advancements in India	Priya Patel	Technology News	2022-10-31 08:45:00
5	Hindustan Times	HT112	Sports Achievements in India	Vikram Singh	Sports News	2022-10-31 08:50:00
6	Deccan Chronicle	DC131	Healthcare Reforms in India	Neha Gupta	Health News	2022-10-31 08:55:00
7	The Telegraph	TT145	Environmental Issues in India	Arun Kumar	Environmental News	2022-10-31 09:00:00
8	Mumbai Mirror	MM167	Bollywood Trends and Gossips	Sneha Kapoor	Entertainment News	2022-10-31 09:05:00
9	The Economic Times	ET189	Stock Market Analysis	Rahul Khanna	Financial News	2022-10-31 09:10:00
10	Navbharat Times	NBT201	Latest Political Developments	Preeti Sharma	Political News	2022-10-31 09:15:00



# ECOMMERCE DATABASE

For e-commerce databases, our Automated Robust Database Testing feature simplifies schema checks, guaranteeing accurate product listings and customer details. By removing manual setup, it speeds up operations and ensures compliance.

#	product_id	product_name	product_type	price	customer_id	customer_email	customer_mobile	timestamp
1	101	Saree	Clothing	1500	CUST001	radha@example.com	9876543210	2022-10-15 09:30:00
2	102	Kurta	Clothing	1200	CUST002	sita@example.com	8765432109	2022-10-15 09:31:00
3	103	Kurta-Pajama	Clothing	1800	CUST003	gita@example.com	7654321098	2022-10-15 09:32:00
4	104	Jeans	Clothing	2000	CUST004	mohan@example.com	6543210987	2022-10-15 09:33:00
5	105	Sneakers	Footwear	2500	CUST005	ram@example.com	5432109876	2022-10-15 09:34:00
6	106	Watch	Accessories	3000	CUST006	krishna@example.com	4321098765	2022-10-15 09:35:00
7	107	Handbag	Accessories	1800	CUST007	lakshmi@example.com	3210987654	2022-10-15 09:36:00
8	108	Kurti	Clothing	1400	CUST008	parvati@example.com	2109876543	2022-10-15 09:37:00
9	109	Sunglasses	Accessories	1200	CUST009	saraswati@example.com	1098765432	2022-10-15 09:38:00
10	110	Trousers	Clothing	2200	CUST010	durga@example.com	0987654321	2022-10-15 09:39:00

04

## WE CAN CREATE OUR OWN KAGGLE !!!

With our platform, you can create your own Kaggle-like environment, fostering collaborative data science projects, competitions, and knowledge sharing within your organization or community.



# TECHSTACK



## Backend

Python (3.x)  
Eden AI API  
Flask  
MySQL

## Frontend

HTML  
CSS  
Javascript  
Json

# BENEFITS

01

- **Saves time and effort:** By automating the process of database creation and data population, the AI Based Database Generator can save developers significant time and effort.
- 

02

- **Reduces errors and inconsistencies:** Manually creating databases and entering data is prone to errors. The AI Based Database Generator helps to eliminate these errors by automating the process.
- 

03

- **Increases efficiency:** The tool can improve the efficiency of the database development process.
- 

04

- **Creates realistic or unrealistic data:** The generator can be configured to generate data that is realistic or unrealistic, depending on the needs of the user.

# FUTURE SCOPE

**Image/Video  
Processing**

**Plagiarism  
Removal**

**Voice  
Recognition**

**Non Relational  
Database  
Population And  
Integration**

# INDUSTRIAL IMPORTANCE



## PROTOTYPING AND DESIGN:- FAST-TRACKING DEVELOPMENT CYCLES

Allows developers and designers to start working on the application logic and user interface without waiting for real data.

## DATA EXPLORATION AND TRAINING:- BOOTSTRAPPING DATA ANALYSIS PROJECTS:

In many industries, initial data collection can be a hurdle. For example, a new marketing team might not have historical customer data yet. The AI Based Database Generator can create a database filled with realistic customer information

## SECURITY TESTING AND RISK ASSESSMENT:- STRESS TESTING DATABASE INFRASTRUCTURE:

As applications grow, their databases need to handle increasing data volumes. The AI Based Database Generator can be used to create massive datasets, allowing developers to test how their database infrastructure scales and performs under heavy load. This helps identify bottlenecks and optimize database performance before real user data floods the system.

# CONCLUSION

The AI Based Database Generator is a valuable tool that can save developers time and effort. The tool can be used to create databases for a variety of purposes, including testing, data analysis, and real-world applications.

With future enhancements, the AI Based Database Generator is likely to become an even more valuable tool for database developers.



# THANK YOU!

**Team:-**

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