

DATA MINING

Upswipe - Connecting startups
and Investors





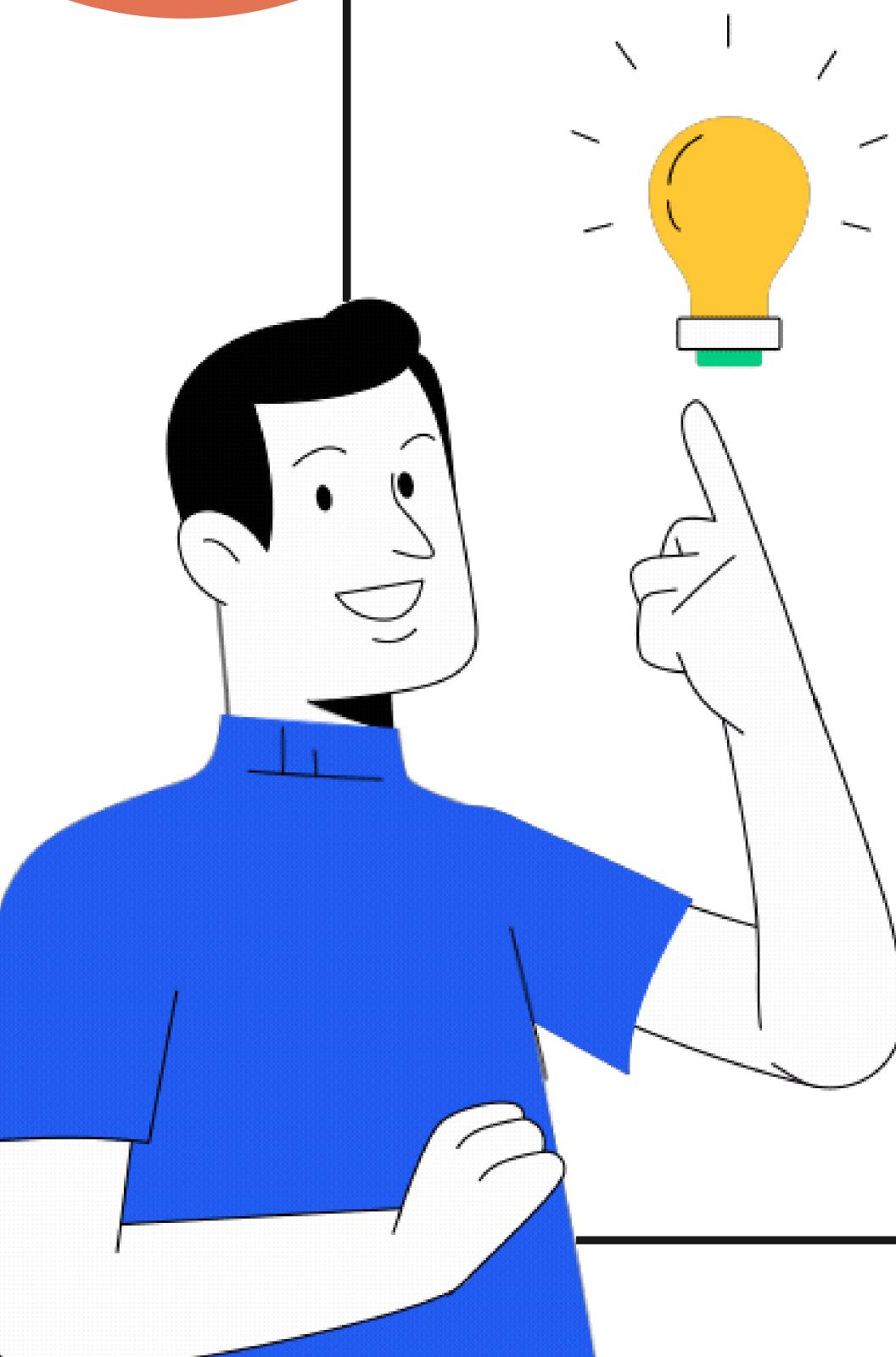
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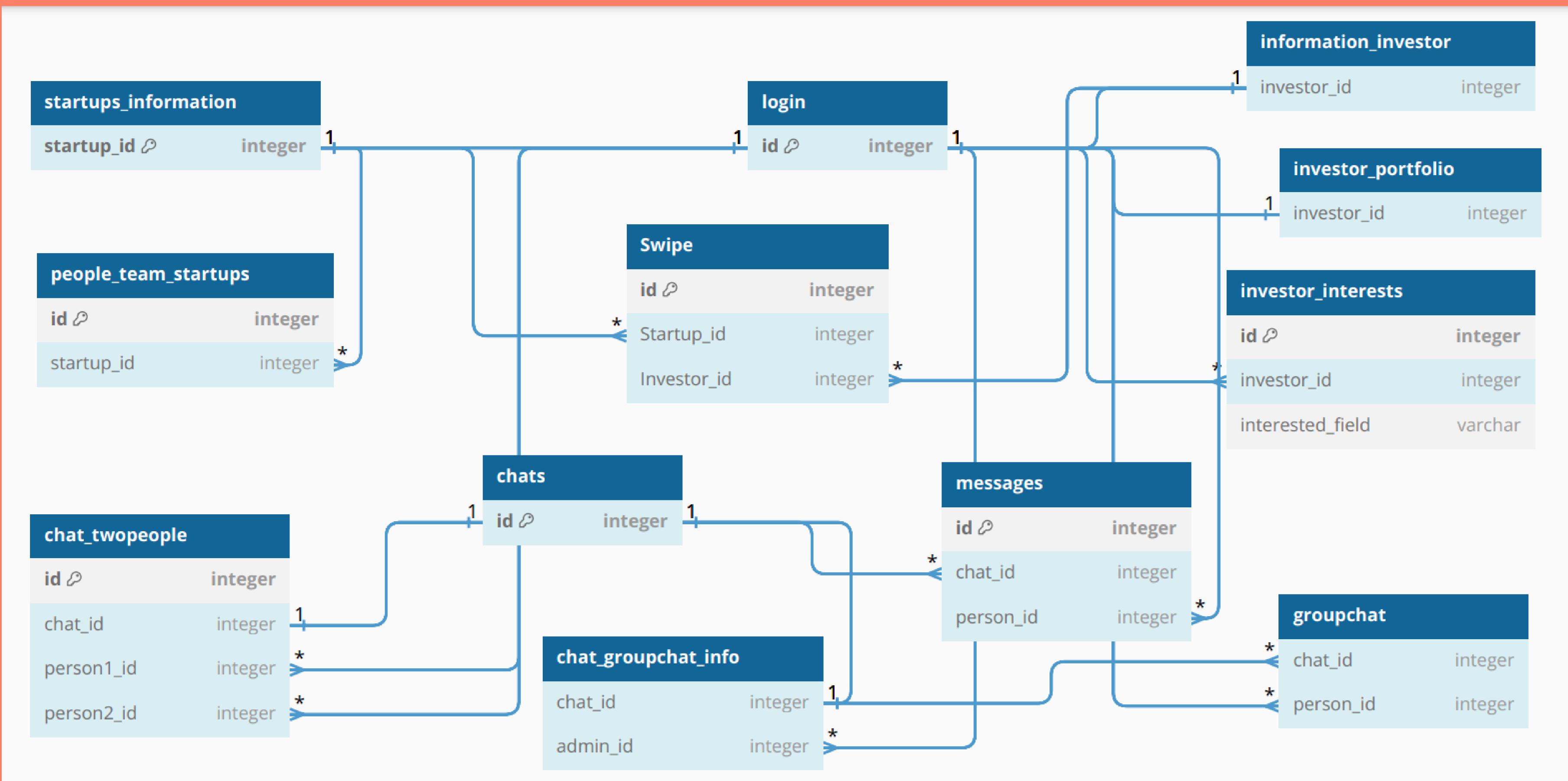


INTRODUCTION

We are working on a database, designed to seamlessly connect startups and investors. Employing tools used for relational databases, our database facilitates efficient matchmaking, empowering startups to showcase their projects and investors to discover promising opportunities effortlessly.



ENTITY RELATIONSHIP DIAGRAM



ENTITY RELATIONS



- login and startups_information: **One-to-One** (Each startup is associated with one unique login).
- login and people_team_startups: **One-to-Many** (A startup can have multiple team members).
- login and Swipe: **One-to-Many** (A user can have multiple swipe records, either as a startup or an investor).
- login and information_investor: **One-to-One** (Each investor has one unique login).
- login and investor_portfolio: **One-to-One** (Each investor has one portfolio).
- login and investor_interests: **One-to-Many** (An investor can have interests in multiple fields).
- login and chats: **One-to-Many** (A user can participate in multiple chats).
- login and messages: **One-to-Many** (A user can send multiple messages).
- login and chat_twopeople: **One-to-Many** (Users can have conversations with many other users).
- login and chat_groupchat_info: **One-to-Many** (A user can be an admin of multiple group chats).
- login and groupchat: **One-to-Many** (A user can be a member of multiple group chats).
- startups_information and Swipe: **One-to-Many** (A startup can be swiped by many investors).
- information_investor and Swipe: **One-to-Many** (An investor can swipe many startups).
- chats and messages: **One-to-Many** (A chat can contain many messages).
- chats and chat_twopeople: **One-to-One** (Each two-people chat corresponds to one chat record).
- chats and chat_groupchat_info: **One-to-One** (Each group chat has one set of info).
- chats and groupchat: **One-to-Many** (A group chat can have many members).

SCHEMA



investor_portfolio	
integer	investor_id
float	Agriculture
float	Manufacturing
float	InformationTechnology
float	Pharmaceuticals
float	Automobile
float	FinancialServices
float	Infrastructure
float	TourismHospitality
float	EducationTraining
float	RetailEcommerce
float	anyother

login	
integer	id
string	Name
string	Email
string	Password
string	Accounttype

information_investor	
integer	investor_id
string	location
string	currentrole
string	yourstory
string	experience
string	education
string	expertise
string	image
string	Funding_stage_preference
integer	industry_since
integer	companies_invested
integer	revenue_gen
string	field
boolean	profile_complete

messages	
integer	chat_id
integer	person_id
string	message
timestamp	timestamp

investor_interests	
integer	investor_id
string	interested_field

chat_twopeople	
integer	chat_id
integer	person1_id
integer	person2_id

SCHEMA



chat_groupchat_info	
integer	chat_id
blob	image
string	title
integer	admin_id

groupchat	
integer	chat_id
integer	person_id
timestamp	timestamp
string	role

people_team_startups	
integer	id
integer	startup_id
string	Name
string	Role
string	Degree_uni
string	person_image_path

startups_information	
integer	startup_id
string	startup_name
string	industry
string	location
string	vision
string	usp
string	motivation
string	target_market
integer	customer_num
integer	revenue_till_date
integer	Team_size
integer	Founding_year
string	logo
string	Funding_stage
integer	Customer_acc_cos
integer	Retention_rate_per
integer	User_growth_perc
string	about_team
boolean	profile_complete

Swipe	
integer	id
integer	Startup_id
integer	Investor_id
boolean	Swipe_successful_inv
boolean	Swipe_successful_startup

chats	
integer	id
string	type
timestamp	timestamp



CONSTRAINTS



1. **PRIMARY KEY** constraint on id column in tables login, information_investor, chats, chat_groupchat_info, startups_information, Swipe, and people_team_startups.
2. **FOREIGN KEY** constraints in various tables to establish relationships between tables, such as FOREIGN KEY (investor_id) REFERENCES login(id) in investor_portfolio, information_investor, investor_interests, chat_twopeople, chat_groupchat_info, groupchat, Swipe, and people_team_startups.
3. **UNIQUE** constraint on Email column in the login table.
4. **CHECK** constraint on Accounttype column in the login table to ensure it only accepts values 'startup' or 'investor'.
5. **CHECK** constraint on type column in the chats table to ensure it only accepts values 'twopeople' or 'group'.
6. **CHECK** constraint on role column in the groupchat table to ensure it only accepts values 'admin' or 'member'.



INDEXING



```
|CREATE INDEX idx_accounttype ON login(Accounttype);
CREATE INDEX idx_industry ON startups_information(industry);
CREATE INDEX idx_interested_field ON investor_interests(interested_field);
CREATE INDEX idx_chattype ON chats(type);
```

VIEWS



investor_details

Name	Email	location	currentrole	yourstory	experience	education	expertise	image	Funding_stage_pr	
reference	industry_since	companies_invested	revenue_gen	field	Agriculture	Manufacturing	InformationTechnology	Pharmaceuticals	Automobile	FinancialServ
ces	Infrastructure	TourismHospitality	EducationTraining	RetailEcommerce	anyother					
John Doe	johndoe@example.com	New York	Angel Investor	Investing in tech startups Technology	10 years 30.0	MBA	Tech 0.0	images/image1	Seed 10.0	20.0
	2005	15		5.0 0.0	5.0 0.0					
Alex Green	alexgreen@example.com	Boston	Angel Investor	Passionate about education technology Education	5 years 40.0	Masters	Education 10.0	images/image3	Pre-Seed 0.0	20.0
	2010	5		10.0 0.0	0.0 0.0					

investor_interests_view

Name	Email	interested_field
John Doe	johndoe@example.com	FinancialServices
John Doe	johndoe@example.com	Technology
Alex Green	alexgreen@example.com	Education

VIEWS

startup_details

Name	Email	customer_num	startup_name	industry	location	vision	usp	motivation	targ	
et_market	customer_num	revenue_till_date	Team_size	Founding_year	logo	Funding_stage	Customer_acc_cost	Retention_rate_perc	User_growth_perc	abo
ut_team	profile_complete									
Jane Smith	janesmith@example.com	10000	Tech Innovations	Technology	Silicon Valley	Innovating everyday life	Unique tech solutions	To make life easier	Glob	
al market	100000	10	2015	images/logo1	Seed	500	85	20	A t	
team of tech enthusiasts	1									
Lisa White	lisawhite@example.com	5000	EduTech Start	Education	New York	Revolutionizing learning	Interactive learning platforms	To educate the world	Stud	
ents worldwide	50000	5	2018	images/logo2	Series A	200	90	30	Edu	
cators and innovators	1									

startup_team_view

startup_name	team_member_name	Role	Degree_uni	person_image_path
Tech Innovations	Sophia Johnson	CMO	Master in Marketing	images/team_image3
Tech Innovations	James Williams	CFO	Master in Finance	images/team_image4
EduTech Start	Isabella Brown	Lead Developer	BS in Computer Science	images/team_image5
EduTech Start	Ethan Davis	Product Manager	MSc in Project Management	images/team_image6
Tech Innovations	Mia Wilson	Design Lead	Bachelor in Design	images/team_image7
EduTech Start	Olivia Martin	HR Manager	Master in Human Resources	images/team_image8
Tech Innovations	Ava Anderson	Research Analyst	Master in Business Analytics	images/team_image9
EduTech Start	Charlotte Lee	QA Lead	BS in Software Engineering	images/team_image10

VIEWS



recent_messages_one_on_one

chat_id	sender_name	receiver_name	message	timestamp
1	John Doe	Jane Smith	Hello, interested in your startup.	2024-03-13 19:50:41
1	Jane Smith	John Doe	Thank you! Looking forward to discussing.	2024-03-13 19:50:41

recent_messages_group_chat

group_title	sender_name	message	timestamp
Tech Investors	John Doe	Welcome to the group chat.	2024-03-13 19:50:41
Tech Investors	Jane Smith	Glad to join here.	2024-03-13 19:50:41

all_messages_details

chat_id	chat_type	sender_name	message	timestamp
1	twopeople	John Doe	Hello, interested in your startup.	2024-03-13 19:50:41
2	group	John Doe	Welcome to the group chat.	2024-03-13 19:50:41
1	twopeople	Jane Smith	Thank you! Looking forward to discussing.	2024-03-13 19:50:41
2	group	Jane Smith	Glad to join here.	2024-03-13 19:50:41

VIEWS

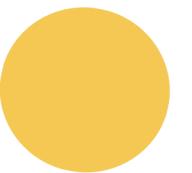


SwipeDetails

startup_name	industry	investor_name	Swipe_successful_inv	Swipe_successful_startup	match
Tech Innovations	Technology	John Doe	1	1	1
Tech Innovations	Technology	Alex Green	0	1	0
EduTech Start	Education	John Doe	1	1	1

SwipeDetailsSuccess

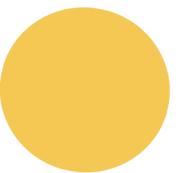
startup_name	industry	investor_name	match
Tech Innovations	Technology	John Doe	1
EduTech Start	Education	John Doe	1



TRIGGERS



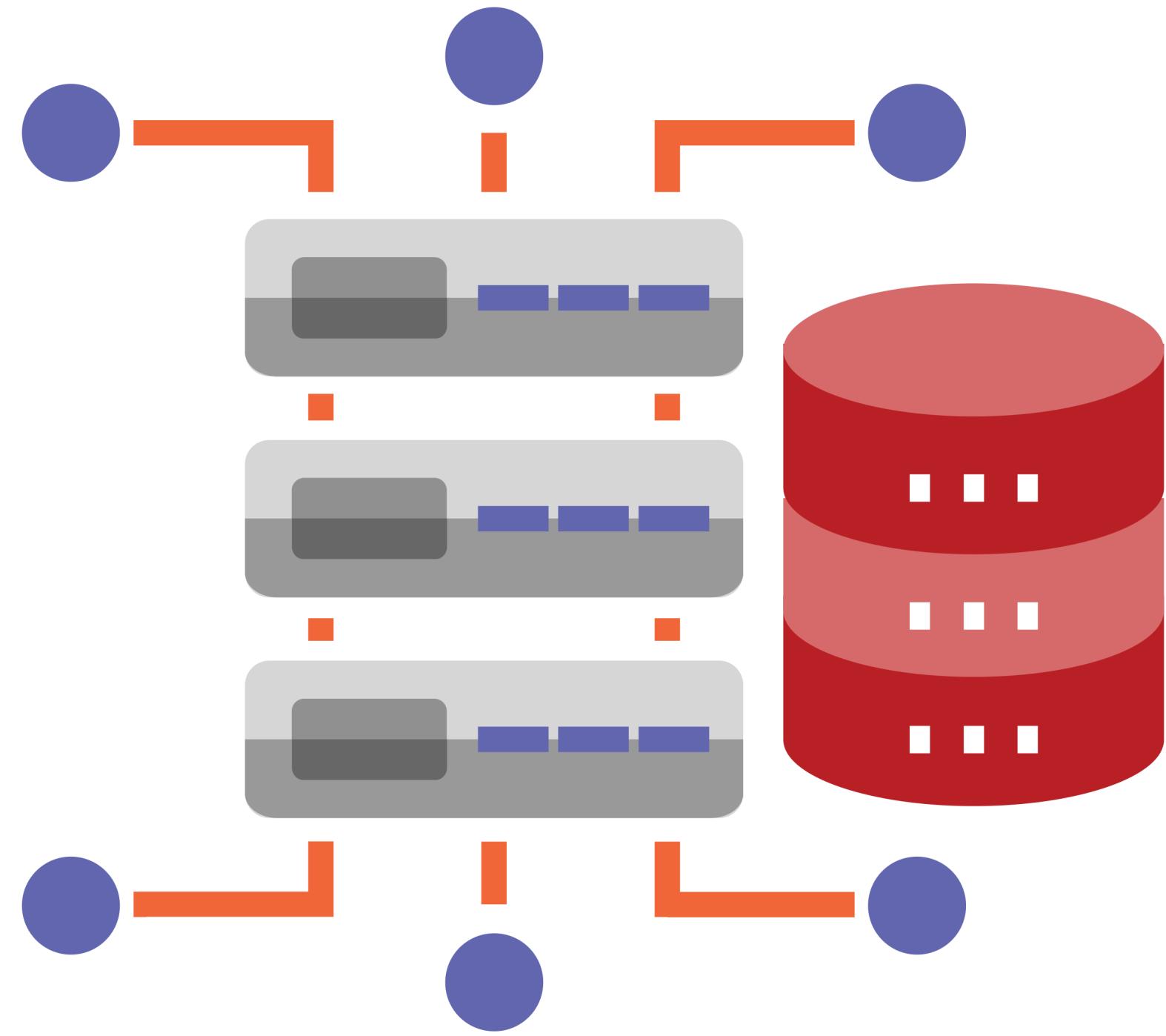
1. **trg_before_groupchat_insert_or_update:** Ensures uniqueness of group chat titles.
2. **trg_before_chats_delete:** Deletes associated records before deleting a chat.
3. **trg_after_startup_info_insert:** Sets profile completeness flag after startup information insertion.
4. **trg_after_startup_info_update:** Updates profile completeness flag after startup information update.
5. **trg_before_login_delete:** Deletes associated records before deleting a user.
6. **trg_after_investor_info_insert:** Sets profile completeness flag after investor information insertion.
7. **trg_after_investor_info_update:** Updates profile completeness flag after investor information update.



TRANSACTIONS



```
BEGIN TRANSACTION;  
DELETE FROM login WHERE id = 3;  
COMMIT;  
  
BEGIN TRANSACTION;  
UPDATE chat_groupchat_info SET admin_id = 3 WHERE admin_id = 1 AND chat_id=2;  
UPDATE groupchat SET role = 'admin' WHERE chat_id = 2 AND person_id = 3;  
UPDATE groupchat SET role = 'member' WHERE chat_id = 2 AND person_id = 1;  
ROLLBACK;
```



COMMON QUERIES

QUERIES

- **Search_Startups_Location_Industry:** Retrieves startups in a specific location and industry.

```
SELECT
    startup_name,
    vision,
    usp,
    Founding_year,
    Team_size
FROM startups_information
WHERE location = 'Silicon Valley'
AND industry = 'Technology';
```

startup_name	vision	usp	Founding_year	Team_size
Tech Innovations	Innovating everyday life	Unique tech solutions	2015	10

QUERIES

- **Search_Investors_Location:** Fetches investors located in a specific area

```
SELECT
    l.Name,
    ii.currentrole,
    ii.experience,
    ii.education,
    ii.Funding_stage_preference
FROM login l
JOIN information_investor ii ON l.id = ii.investor_id
WHERE l.Accounttype = 'investor'
AND ii.location = 'New York';
```

Name	currentrole	experience	education	Funding_stage_preference
-----	-----	-----	-----	-----
John Doe	Angel Investor	10 years	MBA	Seed

QUERIES

- **Filter_Startups_Funding_Industry:** Filters startups based on funding stage and industry.

```
SELECT
    startup_name,
    location,
    vision,
    Founding_year,
    Team_size
FROM startups_information
WHERE Funding_stage = 'Seed'
AND industry = 'Technology';
```

startup_name	location	vision	Founding_year	Team_size
Tech Innovations	Silicon Valley	Innovating everyday life	2015	10

QUERIES

- Fetch_Recent_Messages_Two_Users: Retrieves recent messages between two specific users.

```
SELECT
    m.message,
    m.timestamp,
    sender.Name AS Sender,
    receiver.Name AS Receiver
FROM messages m
JOIN login sender ON m.person_id = sender.id
JOIN chat_twopeople ct ON m.chat_id = ct.chat_id
JOIN login receiver ON (ct.person1_id = receiver.id OR ct.person2_id = receiver.id) AND receiver.id != m.person_id
WHERE ct.chat_id IN
    (SELECT chat_id FROM chat_twopeople WHERE person1_id = 1 OR person2_id = 1 AND person1_id=2 OR person2_id=2)
ORDER BY m.timestamp DESC
LIMIT 10;
```

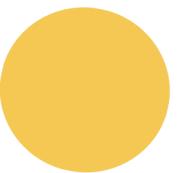
message	timestamp	Sender	Receiver
Hello, interested in your startup.	2024-03-13 19:50:41	John Doe	Jane Smith
Thank you! Looking forward to discussing.	2024-03-13 19:50:41	Jane Smith	John Doe

QUERIES

- **Check_Unsuccessful_Matches:** Checks for unsuccessful matches between startups and investors

```
SELECT
    si.Startup_Name AS Startup_Name,
    l.Name AS Investor_Name,
    CASE
        WHEN s.Swipe_successful_inv = FALSE AND s.Swipe_successful_startup = TRUE THEN 'Investor declined'
        WHEN s.Swipe_successful_inv = TRUE AND s.Swipe_successful_startup = FALSE THEN 'Startup declined'
        ELSE 'Both declined'
    END AS Reason_for_Unsuccessful_Match
FROM Swipe s
JOIN login l ON s.Investor_id = l.id
JOIN startups_information si ON s.Startup_id = si.startup_id
WHERE s.Swipe_successful_inv = FALSE OR s.Swipe_successful_startup = FALSE;
```

Startup_Name	Investor_Name	Reason_for_Unsuccessful_Match
Tech Innovations	Alex Green	Investor declined



LIMITATIONS



- 1. Engagement Metrics Absent:** No tracking of time spent by users on each profile.
- 2. Outcome Tracking Lacking:** No data on whether engagements lead to successful deals.
- 3. Financial Details Omitted:** Investment amounts and detailed transactions are not recorded.
- 4. Messaging Insights Limited:** No metadata for message statuses or read receipts.
- 5. Feedback Mechanism Missing:** No system for users to rate interactions or provide feedback.
- 6. Security Monitoring Insufficient:** Lack of detailed security and access logs.



THE TEAM



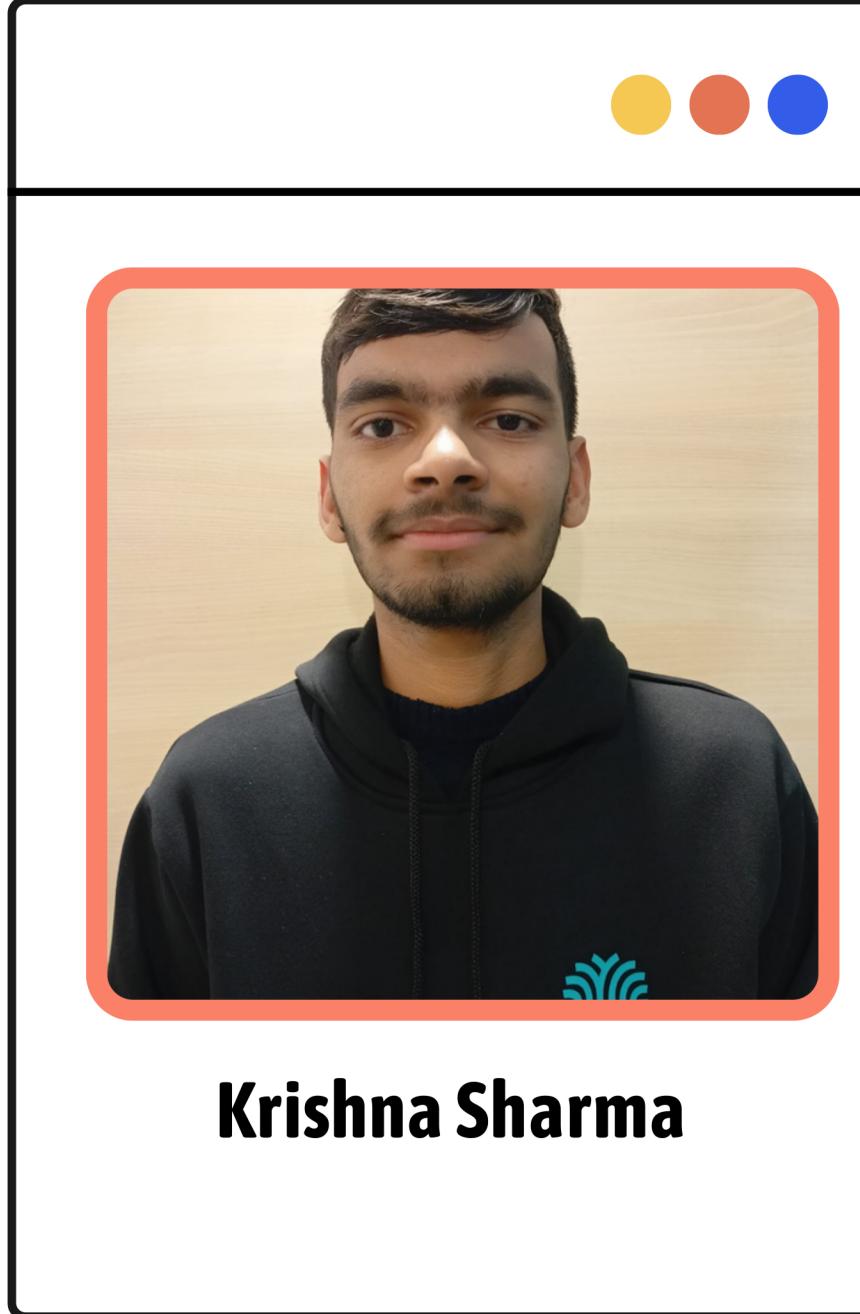
A template card for a team member, featuring a yellow header bar with three dots (yellow, red, blue), a central photo placeholder with a yellow border, and a white footer area with the name "Dipit Golecha".

Dipit Golecha



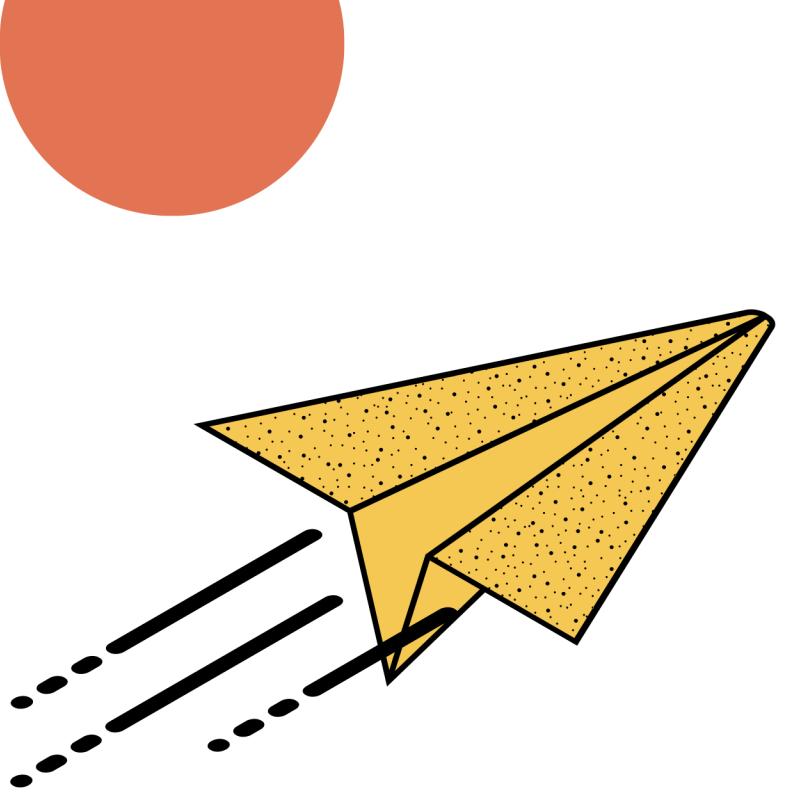
A template card for a team member, featuring a blue header bar with three dots (yellow, red, blue), a central photo placeholder with a blue border, and a white footer area with the name "Harsh Mishra".

Harsh Mishra



A template card for a team member, featuring an orange header bar with three dots (yellow, red, blue), a central photo placeholder with an orange border, and a white footer area with the name "Krishna Sharma".

Krishna Sharma



THANK YOU!

