#### SURVEILLANCE FOR HUMAN RECOGNITION



# TECHNOLOGY

>MACHINE LEARNING

>MICROSOFT AZURE FACE

>ANDROID STUDIO

> MICROSOFT AZURE SQL DATABASE

## APPROACHES

1. OPEN CV : Create.py , Training.py , Recognize.py

**2. FACE RECOGNITION LIBRARY** 

**3. MICROSOFT AZURE FACE** 

#### **MICROSOFT AZURE FACE**

The cloud-based Face provides developers with access to advanced face algorithms. Microsoft Face algorithms enable face attribute detection and face recognition.

1. Face identification Face enables you to search, identify and match faces in your private repository of up to 1 million people.

2. Similar face search Easily find similar-looking faces. Given a collection of faces and a new face as a query, this will return a collection of similar faces.

3. Face grouping Organise many unidentified faces together into groups, based on their visual similarity.

## APPLICATION

Microsoft Cognitive Services Face	← Identification	Microsoft Cognitive Services Face
Identify the person from a DENTIFICATION	SELECT IMAGE No person group selected ADMIN_LOGIN Result	 ENTER
0-0	IDENTIFY VIEW LOG	

#### WORKING

9:44 : 34 36	← Identification Log
Microsoft Cognitive Services Face	
	[21:44:24] Request: Creating person group c7c14de1-57f6-48e9-a50e-2c92af0089fc
5/	[21:44:27] Response: Success. Person group c7c14de1-57f6-48e9-a50e-2c92af0089fc created
	[21:44:35] Request: Creating Person in person groupc7c14de1-57f6-48e9-a50e-2c92af0089fc
	[21:44:35] Response: Success. Person c14c79ed-44f0-49b6-8a73-44e74e1061f3 created.
	[21:44:45] Request: Detecting file:///storage/emulated/0/Android/data/com .microsoft.projectoxford.faceapisample/files /Pictures/IMG_1587392070643061250.jpg
Identify the person from a IDENTIFICATION	[21:44:49] Response: Success. Detected 1 Face(s)
	[21:44:52] Request: Adding face to person c14c79ed-44f0-49b6-8a73-44e74e1061f3
	[21:44:55] Response: Success. Face(s) 7abd674e-296c-4693-973c-c61763926cd0, added to person c14c79ed-44f0-49b6-8a73-44e74e1061f3
	[21:45:07] Request: Training group c7c14de1-57f6-48e9-a50e-2c92af0089fc
01	[21:45:07] Response: Success, Group

c7c14de1-57f6-48e9-a50e-2c92af0089fc training completed

[21:45:12] Request: Creating Person in person groupc7c14de1-57f6-48e9-a50e-2c92af0089fc

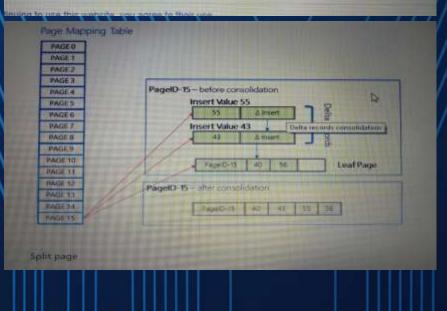
[21:45:13] Response: Success. Person 1bea0a9b-c3d9-4baa-ad9a-f478931edeab created.

#### **MICROSOFT AZURE SQL DATABASE**

- Azure SQL Database is the intelligent, scalable, cloud database service that provides the broadest SQL Server engine compatibility.
- 2. Built-in machine learning for peak database performance and durability that optimises performance and security.

3. Advanced data security including data discovery and classification, vulnerability assessment and advanced threat detection all in a single pane of glass.

Configuration	Avg Rows Per Second			Avg MB Per Minute		
	SQ1	SQ2	SQ3	SQ1	SQ2	SQ3
Web 1T	25714	28729	27077	553.2	618.1	582 1
Business 1T	24664	24667	22429	530.6	530.7	482.5
Basic 1T	1820	1833	1833	39.1	39.4	39.4
Std S1 1T	1412	1229	1359	30.3	26.4	29.2
Std S2 2T	6661	6291	7095	143.1	135.2	152.4
Prem P1 2T	18767	17742	19399	403.2	381.2	416.8
Prem P2 4T	36151	32589	38243	776.8	700.2	821.7



## CONCLUSION

- This APP is advantageous in many fields :
  1. Offices
  2. Colleges
  3. Organisations
  4. Schools etc.. For security purpose.
- Takes less time in Detection and Recognition.
- Cost Efficient ,can be put on many devices.