

# SUB-TABLES

## 1) Regional Distribution

### Description

The **Regional-Table** sub-table contains geographic information about learners, enabling analysis of applicant distribution by location. This sub-table supports dashboard visualizations such as maps or bar charts to show where applicants are from, which is critical for understanding regional engagement. Since a learner can enroll in multiple programs, resulting in duplicate learner\_id values in the new\_master\_table, this sub-table includes only one row per learner\_id to avoid redundant geographic data.

### Columns:

- learner\_id: Unique identifier for each learner (VARCHAR, primary key).
- country: Learner's country of residence (VARCHAR).
- state: Learner's state or region (VARCHAR).
- city: Learner's city of residence (VARCHAR).
- zip: Learner's postal code (VARCHAR).

Purpose: Used for the "Regional Distribution" page of the dashboard to analyze geographic trends, such as the number of applicants by country or state.

### SQL Code

-- Create the regional\_distribution sub-table

```
CREATE TABLE regional_distribution (
```

```
  learner_id VARCHAR(50),
```

```
  country VARCHAR(100),
```

```
  state VARCHAR(100),
```

```
  city VARCHAR(100),
```

```
  zip VARCHAR(20),
```

```
  PRIMARY KEY (learner_id)
```

```
);
```

-- Insert data, keeping only one row per learner\_id

```
INSERT INTO regional_distribution (learner_id, country, state, city, zip)
```

```
SELECT DISTINCT ON (learner_id) learner_id, country, state, city, zip
```

```
FROM new_master_table
```

```
WHERE learner_id IS NOT NULL
```

```
ORDER BY learner_id, user_last_modified_date DESC;
```

|    | learner_id<br>[PK] character varying (50) | country<br>character varying (100) | state<br>character varying (100) | city<br>character varying (100) | zip<br>character varying (20) |
|----|---|------------------------------------|----------------------------------|---------------------------------|-------------------------------|
| 1  | 00004f18-8b86-4fe4-ad7e-6c8d988f53...     | Nigeria                            | Imo                              | Owerri                          | 460103                        |
| 2  | 00006478-745f-49bf-b126-02584e8307...     | Nigeria                            | [null]                           | [null]                          | [null]                        |
| 3  | 00010567-1336-433c-a941-a612b3d2f...      | Kenya                              | NAKURU                           | NAIVASHA                        | 20117                         |
| 4  | 00011c80-0c5c-4601-9696-b3ca787e2...      | Bangladesh                         | [null]                           | [null]                          | [null]                        |
| 5  | 000141a7-4c82-401f-a2e6-dd12b4b260...     | Nigeria                            | [null]                           | [null]                          | [null]                        |
| 6  | 0001ca2c-7bec-4a33-833c-b844a29f4d...     | Nigeria                            | Abuja FCT                        | Abuja                           | 900211                        |
| 7  | 0003bed9-d9d9-49a7-a755-a9562aaa0...      | Pakistan                           | PUNJAB                           | Khanur                          | 64100                         |
| 8  | 0003dac8-45a1-40d0-9c9b-9c3cfb7060...     | India                              | Uttarpradesh                     | Kanpur                          | 208010                        |
| 9  | 0004295c-717e-4953-b3bf-fff2daf0e903      | Nigeria                            | Lagos                            | Ikorodu                         | 101242                        |
| 10 | 00049a81-94a9-4b25-92ed-62d017f3b...      | Philippines                        | Rizal                            | Antipolo                        | 1870                          |

## 2) Demographics

### Description

The **Demographics** sub-table contains demographic information about learners, enabling analysis of applicant characteristics such as gender and age. This sub-table supports dashboard visualizations like pie charts for gender distribution or histograms for age distribution, helping identify demographic trends. Since a learner can enroll in multiple programs, resulting in duplicate learner\_id values in the new\_master\_table, this sub-table includes only one row per learner\_id to avoid redundant demographic data.

### Columns:

- learner\_id: Unique identifier for each learner (VARCHAR, primary key).
- gender: Learner's gender (VARCHAR, e.g., Male, Female, Non-binary).
- birth\_date: Learner's date of birth (DATE), used to calculate age.

**Purpose:** Used for the "Demographics" page of the dashboard to analyze applicant demographics, such as gender distribution or age group trends.




### SQL Code

```
-- Create the demographics sub-table
```

```
CREATE TABLE demographics (  
  learner_id VARCHAR(50),  
  gender VARCHAR(50),  
  birth_date DATE,  
  PRIMARY KEY (learner_id)  
);
```

```
-- Insert data, keeping only one row per learner_id
```

```
INSERT INTO demographics (learner_id, gender, birth_date)  
SELECT DISTINCT ON (learner_id) learner_id, gender, birth_date  
FROM new_master_table  
WHERE learner_id IS NOT NULL  
ORDER BY learner_id, user_last_modified_date DESC;
```

|    | learner_id<br>[PK] character varying (50)  | gender<br>character varying (50)  | birth_date<br>date  |
|----|---|--|--|
| 1  | 00004f18-8b86-4fe4-ad7e-6c8d988f53...   | Male   | 2001-06-23   |
| 2  | 00006478-745f-49bf-b126-02584e8307...   | [null]   | [null]   |
| 3  | 00010567-1336-433c-a941-a612b3d2f...  | Female   | 1996-05-04   |
| 4  | 00011c80-0c5c-4601-9696-b3ca787e2...  | [null]   | [null]   |
| 5  | 000141a7-74c82-401f-a2e6-dd12b4b260...  | [null]   | [null]   |
| 6  | 0001ca2c-7bec-4a33-833c-b844a29f4d...   | Male   | 1986-06-06   |
| 7  | 0003bed9-d9d9-49a7-a755-a9562aaa0...  | Male   | 1999-04-12   |
| 8  | 0003dac8-45a1-40d0-9c9b-9c3cfb7060...   | Male   | 2006-06-15   |
| 9  | 0004295c-717e-4953-b3bf-fff2daf0e903  | Male   | 2002-07-08   |
| 10 | 00049a81-94a9-4b25-92ed-62d017f3b...  | Female   | 1988-08-11   |

### 3) Academic Background

#### Description

The Academic Background sub-table contains information about learners' educational profiles, enabling analysis of their academic qualifications. This sub-table supports dashboard visualizations like bar charts for popular majors or tables for degree and institution breakdowns, helping identify educational trends among applicants. Since a learner can enroll in multiple programs, resulting in duplicate learner\_id values in the new\_master\_table, this sub-table includes only one row per learner\_id to avoid redundant academic data.

#### Columns:

- learner\_id: Unique identifier for each learner (VARCHAR, primary key).
- degree: Learner's academic degree (VARCHAR, e.g., Bachelor's, Master's).
- institution: Name of the educational institution (VARCHAR).
- major: Learner's field of study (VARCHAR, e.g., Computer Science, Biology).

Purpose: Used for the "Academic Background" page of the dashboard to analyze applicants' educational profiles, such as the distribution of degrees or popular majors.

#### SQL Code

```
-- Create the academic_background sub-table
```

```
CREATE TABLE academic_background (
```

```
  learner_id VARCHAR(50),
```

```
  degree VARCHAR(100),
```

```
  institution VARCHAR(200),
```

```
  major VARCHAR(100),
```

```
  PRIMARY KEY (learner_id)
```

```
);
```

```
-- Insert data, keeping only one row per learner_id
```

```
INSERT INTO academic_background (learner_id, degree, institution, major)
```

```
SELECT DISTINCT ON (learner_id) learner_id, degree, institution, major
```

```
FROM new_master_table
```

```
WHERE learner_id IS NOT NULL
```

```
ORDER BY learner_id, user_last_modified_date DESC;
```

|    | learner_id<br>[PK] character varying (50) | degree<br>character varying (200) | institution<br>character varying (200)  | major<br>character varying (200) |
|----|---|-----------------------------------|---|----------------------------------|
| 1  | 00004f18-8b86-4fe4-ad7e-6c8d988f53...     | Undergraduate Student             | Federal University of Technology Owerri | Civil Engineering                |
| 2  | 00006478-745f-49bf-b126-02584e8307...     | [null]                            | [null]                                  | [null]                           |
| 3  | 00010567-1336-433c-a941-a612b3d2f...      | Graduate Student                  | UNICAF UNIVERSITY                       | Environmental Sustainability     |
| 4  | 00011c80-0c5c-4601-9696-b3ca787e2...      | [null]                            | [null]                                  | [null]                           |
| 5  | 000141a7-4c82-401f-a2e6-dd12b4b260...     | [null]                            | [null]                                  | [null]                           |
| 6  | 0001ca2c-7bec-4a33-833c-b844a29f4d...     | Graduate Student                  | Nasarawa State University, Keffi        | Accounting                       |
| 7  | 0003bed9-d9d9-49a7-a755-a9562aaa0...      | Graduate Student                  | CTTI College KP Campus                  | Part Time                        |
| 8  | 0003dac8-45a1-40d0-9c9b-9c3cfb7060...     | Undergraduate Student             | Allenhouse institute of technology      | Electronics and Communication    |
| 9  | 0004295c-717e-4953-b3bf-fff2daf0e903      | Undergraduate Student             | Caleb University                        | Computer Science                 |
| 10 | 00049a81-94a9-4b25-92ed-62d017f3b...      | Undergraduate Student             | Our lady of fatima university           | Nursing                          |

## 4) Opportunity Details

### Description

The Opportunity Details sub-table contains information about learners' program enrollments, enabling analysis of application patterns and opportunity characteristics. This sub-table supports dashboard visualizations like bar charts for applications by category or line charts for application trends over time. Unlike other sub-tables, this table retains all rows for a learner\_id from the new\_master\_table because each row represents a unique program enrollment, as learners can enroll in multiple programs.

### Columns:

- learner\_id: Unique identifier for each learner (VARCHAR).
- opportunity\_name: Name of the program or course (VARCHAR, e.g., Data Science Bootcamp).
- category: Type of opportunity (VARCHAR, e.g., Scholarship, Internship, Course).
- start\_date: Start date of the opportunity (DATE).
- end\_date: End date of the opportunity (DATE).
- apply\_date: Date the learner applied for the opportunity (DATE).

Purpose: Used for the "Opportunity Details" page of the dashboard to analyze application trends, popular programs, and opportunity durations.

### SQL Code

```
-- Create the opportunity_details sub-table
CREATE TABLE opportunity_details (
  learner_id VARCHAR(50),
  opportunity_name VARCHAR(200),
  category VARCHAR(100),
  start_date DATE,
  end_date DATE,
  apply_date DATE
);

-- Insert data, keeping all enrollment records
INSERT INTO opportunity_details (learner_id, opportunity_name, category, start_date, end_date, apply_date)
SELECT learner_id, opportunity_name, category, start_date, end_date, apply_date
FROM new_master_table
WHERE learner_id IS NOT NULL
AND opportunity_name IS NOT NULL
AND apply_date IS NOT NULL;
```

|    | learner_id<br>character varying (50) | opportunity_name<br>character varying (200)                       | category<br>character varying (100) | start_date<br>date | end_date<br>date | apply_date<br>date |
|----|--------------------------------------|---|-------------------------------------|--------------------|------------------|--------------------|
| 1  | d7b895ac-cc59-4750-acc4-35e9870be0a4 | CPR/AED Certification   | Course                              | 2023-03-28         | 2024-07-03       | 2023-12-14         |
| 2  | b121efdf-7c03-4040-8c3a-69d708bc477f | Digital Marketing Early Internship                                | Internship                          | 2024-07-03         | 2024-10-27       | 2024-04-08         |
| 3  | b121efdf-7c03-4040-8c3a-69d708bc477f | Jump Start: Developing your Emotional Intelligence                | Course                              | 2024-03-09         | 2026-02-02       | 2024-04-05         |
| 4  | b1238608-3db7-47a9-8b60-e099274421ea | Career Essentials: Getting Started with Your Professional Journey | Course                              | 2024-03-09         | 2025-02-20       | 2024-03-15         |
| 5  | b123878a-b852-47a8-9238-06f0ab27c407 | Career Essentials: Getting Started with Your Professional Journey | Course                              | 2024-10-27         | 2025-10-09       | 2024-11-25         |
| 6  | b124720b-0d93-489a-be75-bf15bc8084ff | Career Essentials: Getting Started with Your Professional Journey | Course                              | 2022-12-02         | 2024-03-09       | 2023-01-18         |
| 7  | d66ce001-c3fe-4f2e-99a2-6c46403a69a3 | Entrepreneurship and Innovation                                   | Internship                          | 2023-07-22         | 2023-07-22       | 2023-05-19         |
| 8  | cf4f329e-92ee-4724-b3c0-e42dbbd0c6f8 | Dust Extraction Challenge - Phase 1                               | Competition                         | 2025-02-20         | 2025-02-20       | 2025-01-10         |
| 9  | bcaa39c0-2acd-489b-9a80-93caa5ca851c | Project Management Associate Early Internship                     | Internship                          | 2025-02-20         | 2025-02-20       | 2025-02-08         |
| 10 | bcad376d-332f-439e-9a22-520551550b37 | Digital Detox Challenge   | Competition                         | 2025-02-20         | 2025-02-20       | 2025-01-19         |

## 5) User Account Information

### Description

The User Account Information sub-table contains details about learners' account creation and updates, enabling analysis of account activity and data quality. This sub-table supports dashboard visualizations like line charts for account creation trends or tables for account details. Since a learner can enroll in multiple programs, resulting in duplicate learner\_id values in the new\_master\_table, this sub-table includes only one row per learner\_id to avoid redundant account data.

### Columns:

- learner\_id: Unique identifier for each learner (VARCHAR, primary key).
- email: Learner's email address (VARCHAR).
- user\_create\_date: Date the learner's account was created (DATE).
- user\_last\_modified\_date: Date the learner's account was last updated (DATE).

Purpose: Used for the "User Account Information" page of the dashboard to analyze account creation trends and monitor data freshness.

### SQL Code

-- Create the user\_account\_information sub-table

```
CREATE TABLE user_account_information (
```

```
  learner_id VARCHAR(50),
```

```
  email VARCHAR(255),
```

```
  user_create_date DATE,
```

```
  user_last_modified_date DATE,
```

```
  PRIMARY KEY (learner_id)
```

```
);
```

-- Insert data, keeping only one row per learner\_id

```
INSERT INTO user_account_information (learner_id, email, user_create_date, user_last_modified_date)
```

```
SELECT DISTINCT ON (learner_id) learner_id, email, user_create_date, user_last_modified_date
```

```
FROM new_master_table
```

```
WHERE learner_id IS NOT NULL
```

```
ORDER BY learner_id, user_last_modified_date DESC;
```

|    | learner_id<br>[PK] character varying (50) | email<br>character varying (255) | user_create_date<br>date | user_last_modified_date<br>date |
|----|---|----------------------------------|--------------------------|---------------------------------|
| 1  | 00004f18-8b86-4fe4-ad7e-6c8d988f53...     | lilbrianholy@gmail.com           | 2023-07-23               | 2023-07-23                      |
| 2  | 00006478-745f-49bf-b126-02584e8307...     | adeyoyintimileyin@gmail.com      | 2024-03-30               | 2024-03-30                      |
| 3  | 00010567-1336-433c-a941-a612b3d2f...      | gikonyosalome19@gmail.com        | 2024-11-17               | 2024-11-17                      |
| 4  | 00011c80-0c5c-4601-9696-b3ca787e2...      | shakibsm32@gmail.com             | 2024-12-24               | 2024-12-24                      |
| 5  | 000141a7-4c82-401f-a2e6-dd12b4b260...     | mandcastle123@gmail.com          | 2024-03-31               | 2024-03-31                      |
| 6  | 0001ca2c-7bec-4a33-833c-b844a29f4d...     | samemma07@gmail.com              | 2024-11-12               | 2024-11-12                      |
| 7  | 0003bed9-d9d9-49a7-a755-a9562aaa0...      | survival4426@gmail.com           | 2025-02-12               | 2025-02-12                      |
| 8  | 0003dac8-45a1-40d0-9c9b-9c3cfb7060...     | atiffiroz628@gmail.com           | 2025-02-21               | 2025-02-21                      |
| 9  | 0004295c-717e-4953-b3bf-fff2daf0e903      | ogunleyetunde.r@gmail.com        | 2024-04-11               | 2024-04-11                      |
| 10 | 00049a81-94a9-4b25-92ed-62d017f3b...      | cristinne.nicor@gmail.com        | 2024-04-01               | 2024-04-01                      |