

# Snowflake cloud Integration with Python/Flask

Sno	Date	Modification	Author	Verified By
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# Snowflake cloud Integraion with Python/flask

Python is an interpreted, object-oriented, high-level programming language with dynamic semantics. Mostly used in Data-science and machine-learning and flask is a python framework This means flask provides you with tools, libraries and technologies that allow you to build a web application. This web application can be some web pages, a blog, a wiki or go as big as a web-based calendar application or a commercial website. On other hand Snowflake Cloud is a Snowflake is an analytic data warehouse provided as Software-as-a-Service (SaaS). Snowflake provides a data warehouse that is faster, easier to use, and far more flexible than traditional data warehouse offerings.

Snowflake's data warehouse is not built on an existing database or "big data" software platform such as Hadoop. The Snowflake data warehouse uses a new SQL database engine with a unique architecture designed for the cloud. To the user, Snowflake has many similarities to other enterprise data warehouses, but also has additional functionality and unique capabilities.



## Business Requirement

The main objective of this project is that store data in a place where there is no chance to lose..thats why need to store data in a cloud

## Solutions:

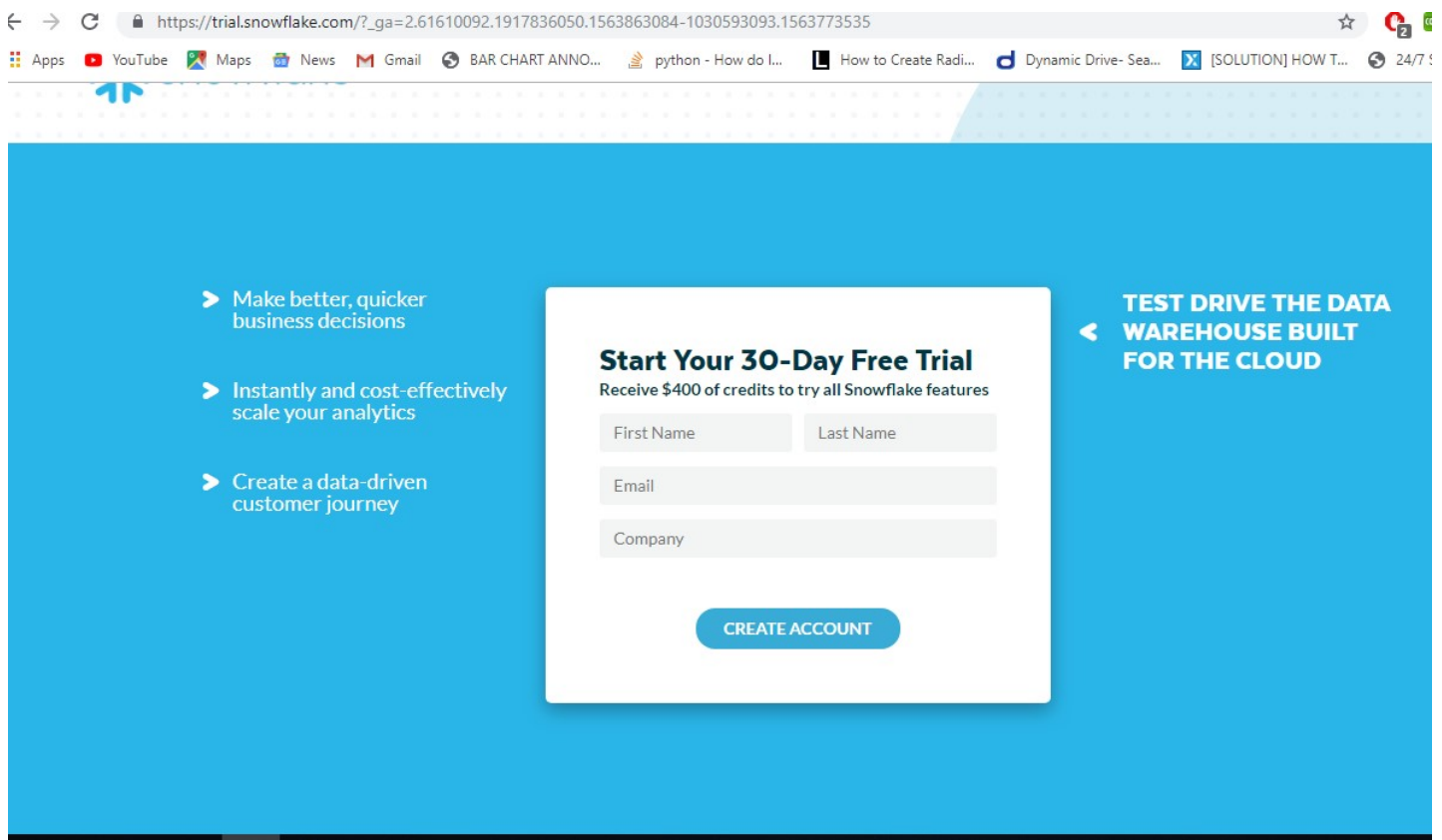
**Note:** In this document we explain step by step Integration between Python/flask and Snowflake (To Insert data into snowflake cloud) using python connector.

## Steps :

# Create a trail account on Snowflake

We can create account from below URL-

Link:[https://trial.snowflake.com/?\\_ga=2.61610092.1917836050.1563863084-1030593093.1563773535](https://trial.snowflake.com/?_ga=2.61610092.1917836050.1563863084-1030593093.1563773535)



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First Name Last Name

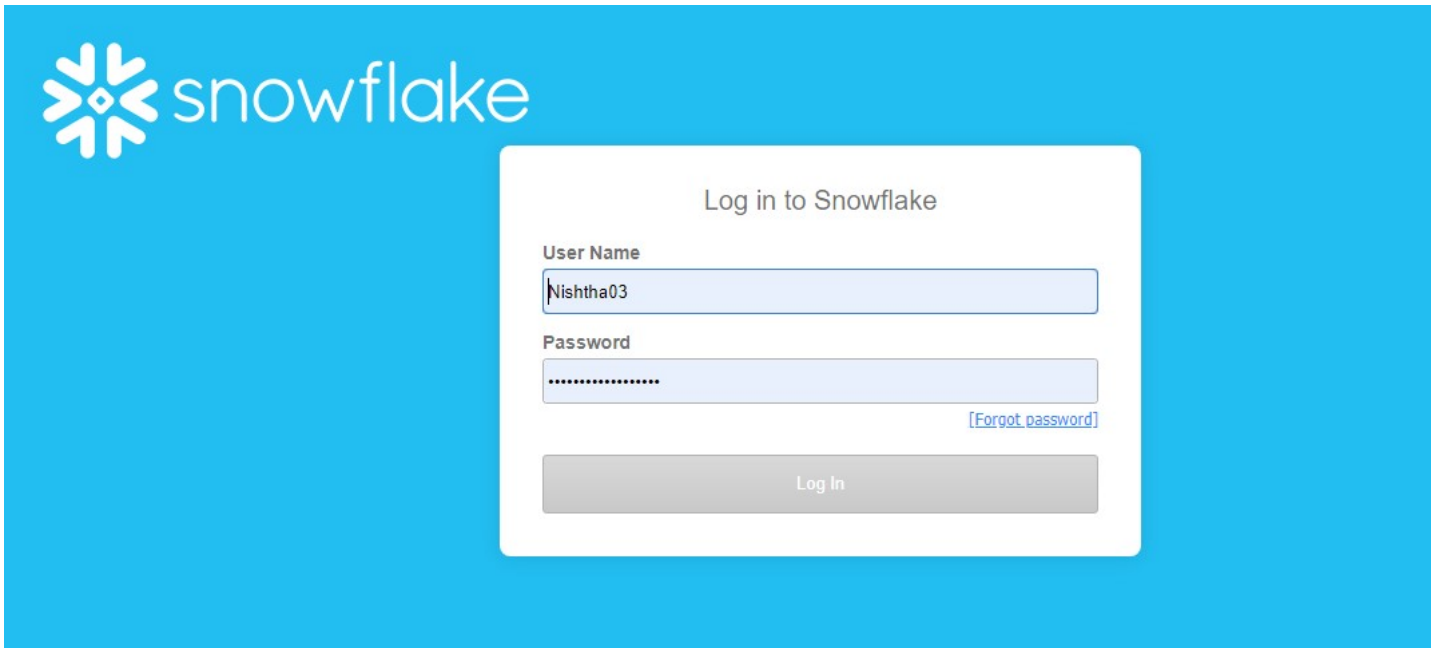
Email

Company

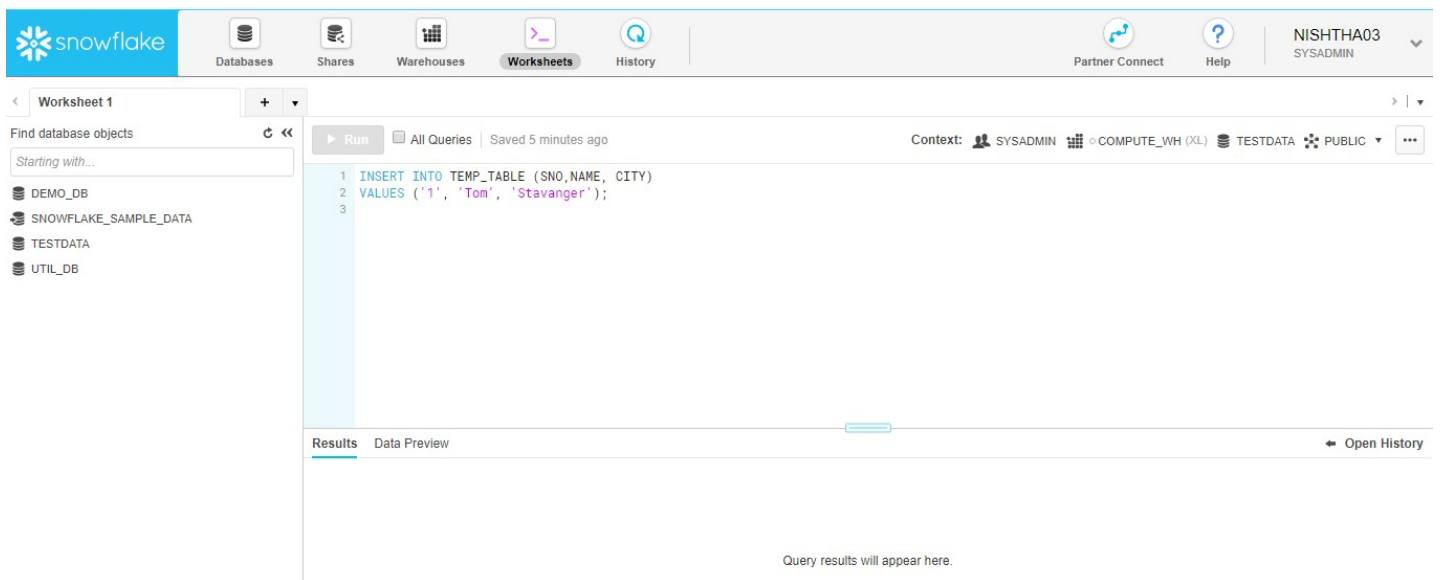
**CREATE ACCOUNT**

**TEST DRIVE THE DATA WAREHOUSE BUILT FOR THE CLOUD**

Fill up required information and click on create account...you receive a confirmation mail. For registered email id with username and one time password...When you click on a link it will redirect to a password reset page once you successfully set your password it will redirect to a login page



Once you have successfully logged in with valid user name and password..it will redirect to a dashboard where you can create a database.



## Insert Data Page

Flask Blog

HomeAbout

LoginRegister

SNO

NAME

CITY

Put Data

Our Sidebar

You can put any information here you'd like.

Latest Posts

Announcements

Calendars

etc

This page was designed in Flask and as per requirement once user fill form and put data button need to Insert new data in Snowflake.

Code to save data into Snowflake table from Insert data page.

Below code will help you to store data into Snowflake.

```
username='nishtha03'
password='*****'
account='dg29137.us-east-1'
warehouse='computer_wh'
database='TESTDATA'
ctx=sf.connect(user=username, password=password, account=account)

@app.route("/snow",methods=['GET', 'POST'])
def test_connection():
    form = SnowflakeForm()
    if form.validate_on_submit():
        SNO = request.form.get("SNO")
        print(SNO)
        NAME = request.form.get("NAME")
        print(NAME)
        CITY = request.form.get("CITY")
        print(CITY)
        cursor = ctx.cursor()

        ctx.cursor().execute("INSERT INTO TESTDATA.PUBLIC.TEMP_TABLE(SNO,NAME, CITY)
values(%s,%s,%s)", (SNO,NAME,CITY))

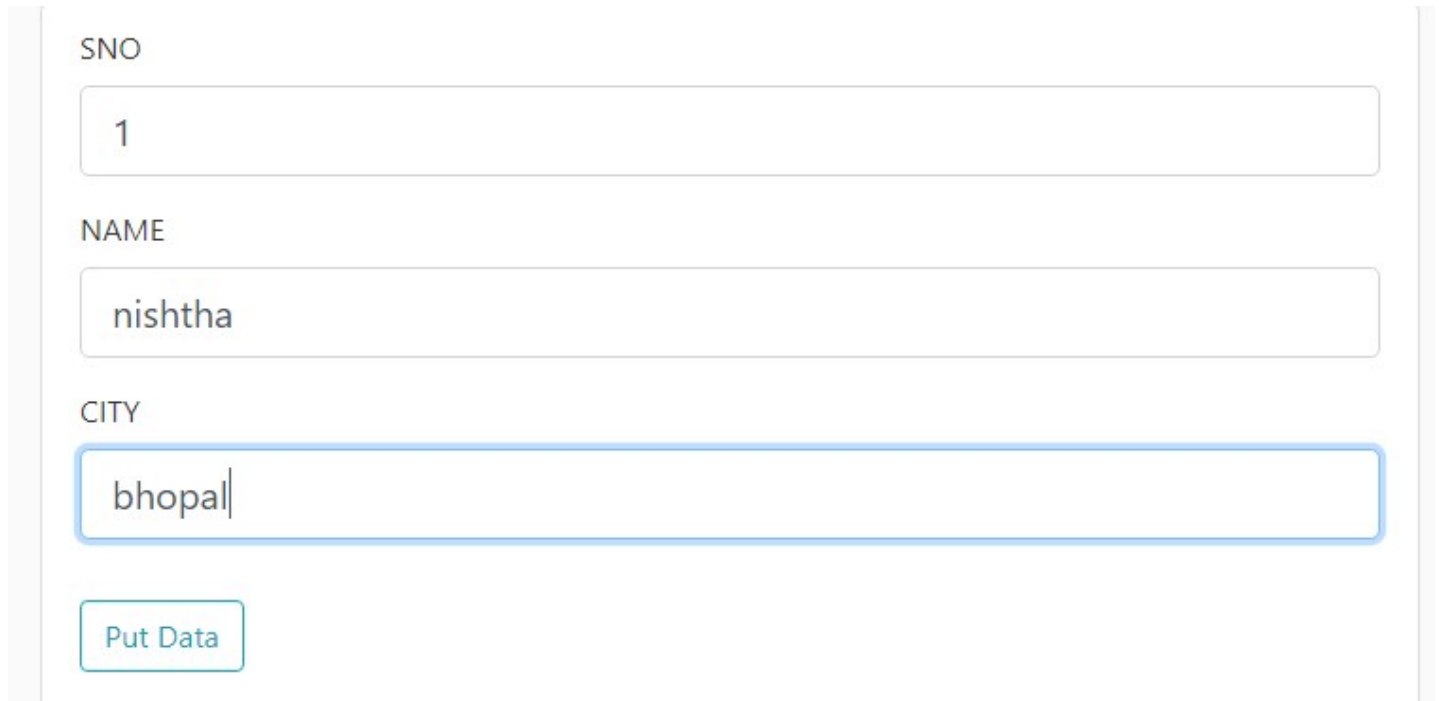
        cursor.close()
        flash('Your data has been submitted!', 'success')
    return render_template('snowflake.html', title='Snow',form=form)
```

Testing:

## Steps to test Integartion

Step1: Start Xampp Server

Step 2: Run application and fill details



The screenshot shows a web application interface with three text input fields and a button. The first field is labeled 'SNO' and contains the number '1'. The second field is labeled 'NAME' and contains the text 'nishtha'. The third field is labeled 'CITY' and contains the text 'bhopal'. Below these fields is a button labeled 'Put Data'.

SNO	NAME	CITY
1	nishtha	bhopal

Step 3: Click on **Put data** Button.

**Result stored into Snowflake Table.**

snowflake

Databases

Shares

Warehouses

Worksheets

History

Partner Connect

Help

NISHTHA03  
SYSADMIN

Worksheet 1

+ -

id database objects

starting with...

DEMO\_DB

SNOWFLAKE\_SAMPLE\_DATA

TESTDATA

INFORMATION\_SCHEMA

PUBLIC

Tables

TEMP\_TABLE

No Views in this Schema

UTIL\_DB

TEMP\_TABLE

Preview Data

rows 1.0 KB

ister by

lums

Columns

DATA Type

IO

ME

TY

VARC

CHAR(16777216)

VARC

CHAR(50)

VARC

CHAR(50)

Run

All Queries

Saved a few seconds ago

Context: SYSADMIN COMPUTE\_WH (XL) TESTDATA PUBLIC

1 INSERT INTO TEMP\_TABLE (SNO,NAME, CITY)

2 VALUES ('1', 'Tom', 'Stavanger');

3

Results

Data Preview

Open Histor

Table: TESTDATA.PUBLIC.TEMP\_TABLE

Data

Details

Filter result...

Columns

Row

SNO

NAME

CITY

1 1 Tom Stavanger

2 2 nishtha bhopal

3 3 nikki indore

4 2 nishtha bhopal

5 3 nikki indore

6 2 nishtha bhopal

7 3 nikki indore

8 2 nishtha bhopal

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