

DATE	27 October 2022
TEAM ID	PNT2022TMID39070
PROJECT NAME	Real-Time River Water Quality Monitoring and Control System

DEVELOP THE PYTHON SCRIPT:

The screenshot shows the PyCharm IDE with a project named 'MyProject'. The file 'Car.py' is open, showing the following Python code:

```

22 class Car:
23     def __init__(self, odometer=0, time=0, speed=0):
24         self.odometer = odometer
25         self.time = time
26         self.speed = speed
27
28     def accelerate(self, speed):
29         self.speed += speed
30
31     def brake(self, speed):
32         self.speed -= speed
33
34     def show_average_speed(self):
35         return self.odometer / self.time
36
37 if __name__ == '__main__':
38
39     my_car = Car()
40     print("I'm a car!")
41
42     while True:
43         action = input("What should I do? [A]ccelerate, [B]rake, show [O]dometer, or show average [S]peed?>")
44         if action not in "ABOS" or len(action) != 1:
45             continue
46         if action == 'A':
47             speed = int(input("What speed do you want to accelerate to?>"))
48             my_car.accelerate(speed)
49             print("I'm going {} kph!".format(my_car.speed))
50         elif action == 'B':
51             speed = int(input("What speed do you want to brake to?>"))
52             my_car.brake(speed)
53             print("I'm going {} kph!".format(my_car.speed))
54         elif action == 'O':
55             print("The car's average speed was {} kph".format(my_car.show_average_speed()))
56         elif action == 'S':
57             print("I'm going {} kph!".format(my_car.speed))
58

```

The Run window shows the output of the script:

```

What should I do? [A]ccelerate, [B]rake, show [O]dometer, or show average [S]peed?>a
I'm going 5 kph!
What should I do? [A]ccelerate, [B]rake, show [O]dometer, or show average [S]peed?>s
The car's average speed was 5.0 kph
I'm going 5 kph!
What should I do? [A]ccelerate, [B]rake, show [O]dometer, or show average [S]peed?>

```

The status bar at the bottom indicates: PEP 8: W391 blank line at end of file, LF, UTF-8, 4 spaces, Python 3.6 (MyProject).

MyProject > Car.py

Car.py

```
29
30
31 if __name__ == '__main__':
32
33     my_car = Car()
34     print("I'm a car!")
35     while True:
36         action = input("What should I do? [A]ccelerate, [B]rake, "
37                        "show [O]dometer, or show average [S]peed?").upper()
38         if action not in "ABOS" or len(action) != 1:
39             print("I don't know how to do that")
40             continue
```

if __name__ == '__main__' > while True

Run: Car

/Users/jetbrains/PycharmProjects/MyPythonProject/venv/bin/python
/Users/jetbrains/PycharmProjects/MyProject/Car.py
I'm a car!
What should I do? [A]ccelerate, [B]rake, show [O]dometer, or show average
[S]peed?

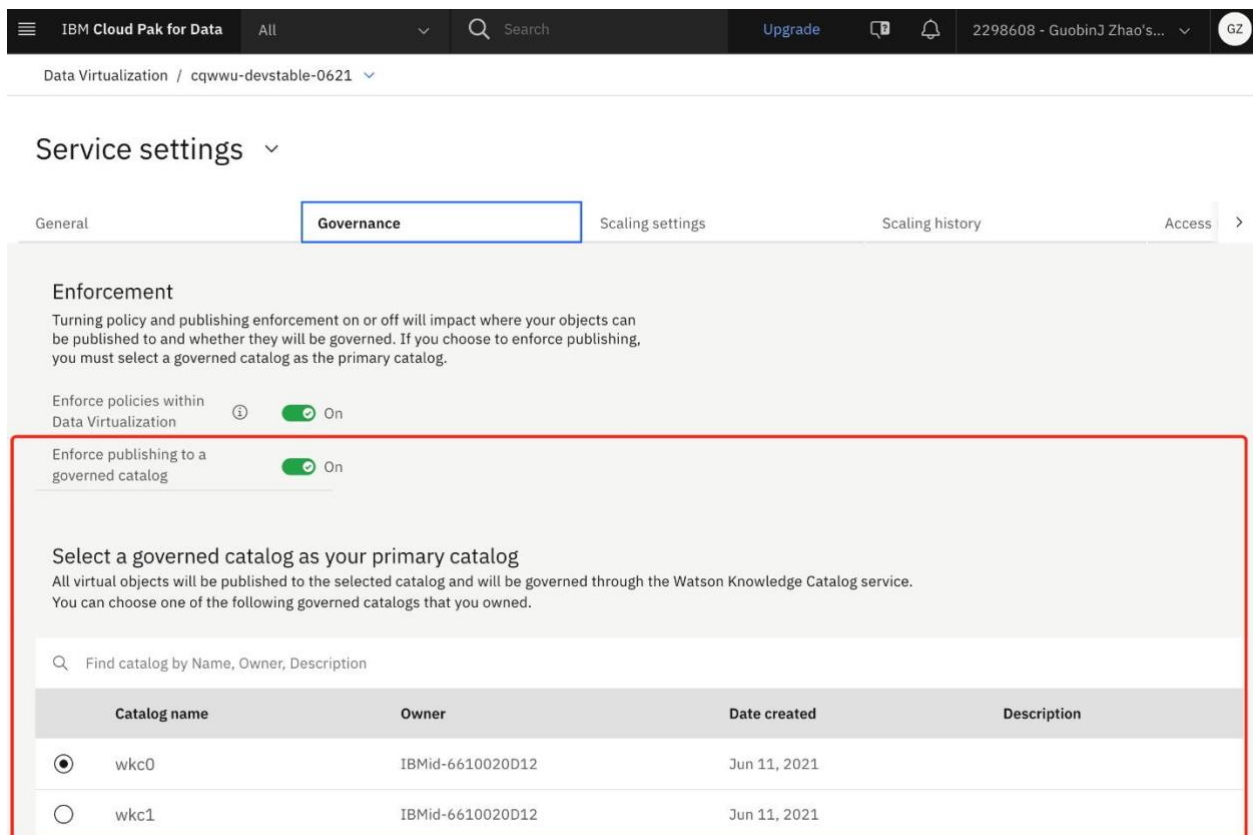
PUBLISH DATA TO THE IBM CLOUD:

You can publish your virtual data to catalogs in Watson™ Knowledge Catalog. An administrator can configure Data Virtualization to automatically publish all virtual objects that are created in the user interface to a configured primary catalog.

By publishing your virtual data to a catalog, you can:

- Organize, label, classify, and search for the published data assets with global search.
- Govern the virtual data asset and subject it to data protection rules by [enabling policy enforcement](#) in Data
-
- Navigate to **Service settings**.
- On the **Governance** tab, enable the **Enforce publishing to a governed catalog** option.

A list of governed catalogs that you have Admin access to is shown. You must select a governed catalog as your primary catalog. When you set a primary catalog, all



IBM Cloud Pak for Data All Search Upgrade 2298608 - GuobinJ Zhao's... GZ

Data Virtualization / cqwwwu-devstable-0621

Service settings

General **Governance** Scaling settings Scaling history Access

Enforcement

Turning policy and publishing enforcement on or off will impact where your objects can be published to and whether they will be governed. If you choose to enforce publishing, you must select a governed catalog as the primary catalog.

Enforce policies within Data Virtualization ☒ On

Enforce publishing to a governed catalog ☒ On

Select a governed catalog as your primary catalog

All virtual objects will be published to the selected catalog and will be governed through the Watson Knowledge Catalog service. You can choose one of the following governed catalogs that you owned.

Find catalog by Name, Owner, Description

Catalog name	Owner	Date created	Description
<input checked="" type="radio"/> wkc0	IBMid-6610020D12	Jun 11, 2021	
<input type="radio"/> wkc1	IBMid-6610020D12	Jun 11, 2021	

virtualized objects are published to this catalog automatically. The **Publish to catalog** option is disabled when you review your cart and virtualize tables.

1. On the service menu, click **Virtualization > Virtualized data**.
2. Select the virtual objects that you want to publish and click **Publish to catalog**.

IBM Cloud Pak for Data

All

Q Search

Upgrade

2298608 - GuobinJ Zhao's...

GZ

Data Virtualization / cqwwu-devstable-0621

Review cart and virtualize tables

Empty cartBackVirtualize

Assign to

Project

My virtualized data

Also publish to

☒ Publish to catalog

Select a catalog

wkc0

Governed

DevCatalog

Not governed

TestCatalog

Not governed

wkc1

Governed

Objects to be virtualized

Table	Schema	Source schema	Grouped tables
CONTEXT	DV_IBM... x v	AUDIT	1
SYSADMIN	DV_IBM... x v	AUDIT	1
VALIDATE	DV_IBM... x v	AUDIT	1

3.Continue with the virtualization process