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|--------------|---|
| DATE | 03 November 2022 |
| TEAM ID | PNT2022TMID43902 |
| 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 in the editor. The code defines a 'Car' class with attributes 'odometer' and 'time', and methods 'accelerate', 'brake', 'show_odometer', and 'average_speed'. The main block creates a 'Car' object, prints a message, and enters a loop where it prompts the user for actions (accelerate, brake, show odometer, or show average speed) and performs the corresponding actions.

```

22     self.time += 1
23     return self.odometer / self.time
24
25
26 if __name__ == '__main__':
27
28     my_car = Car()
29     print("I'm a car!")
30
31     while True:
32         action = input("What should I do? [A]ccelerate, [B]rake, show [O]dometer, or show average [S]peed?>")
33         if action in "ABOS" and len(action) != 1:
34             continue

```

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 the file encoding is UTF-8, using 4 spaces for indentation, and the Python version is 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?

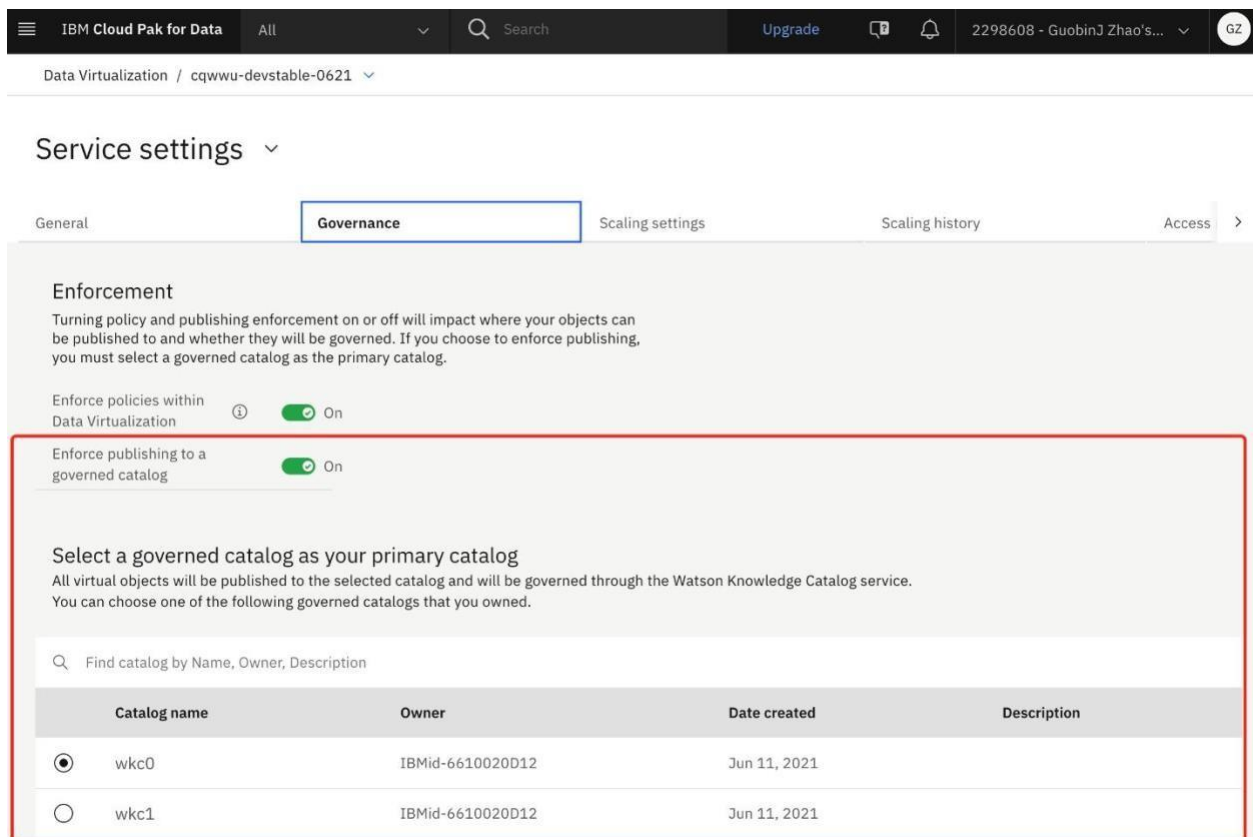
PUBLISH DATA TO THE IBM CLOUD:

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



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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**.

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Review cart and virtualize tables

Empty cart | Back | Virtualize

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