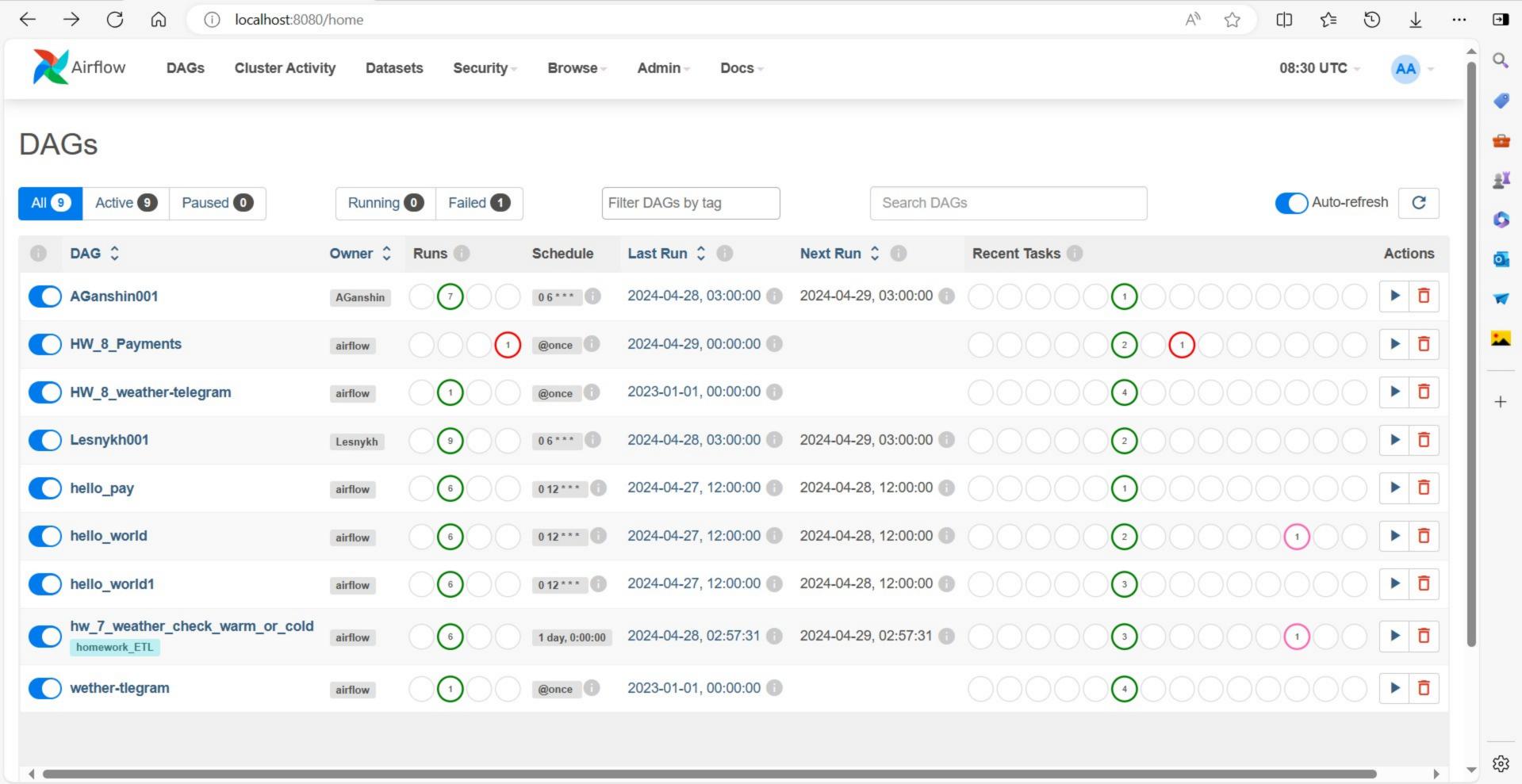
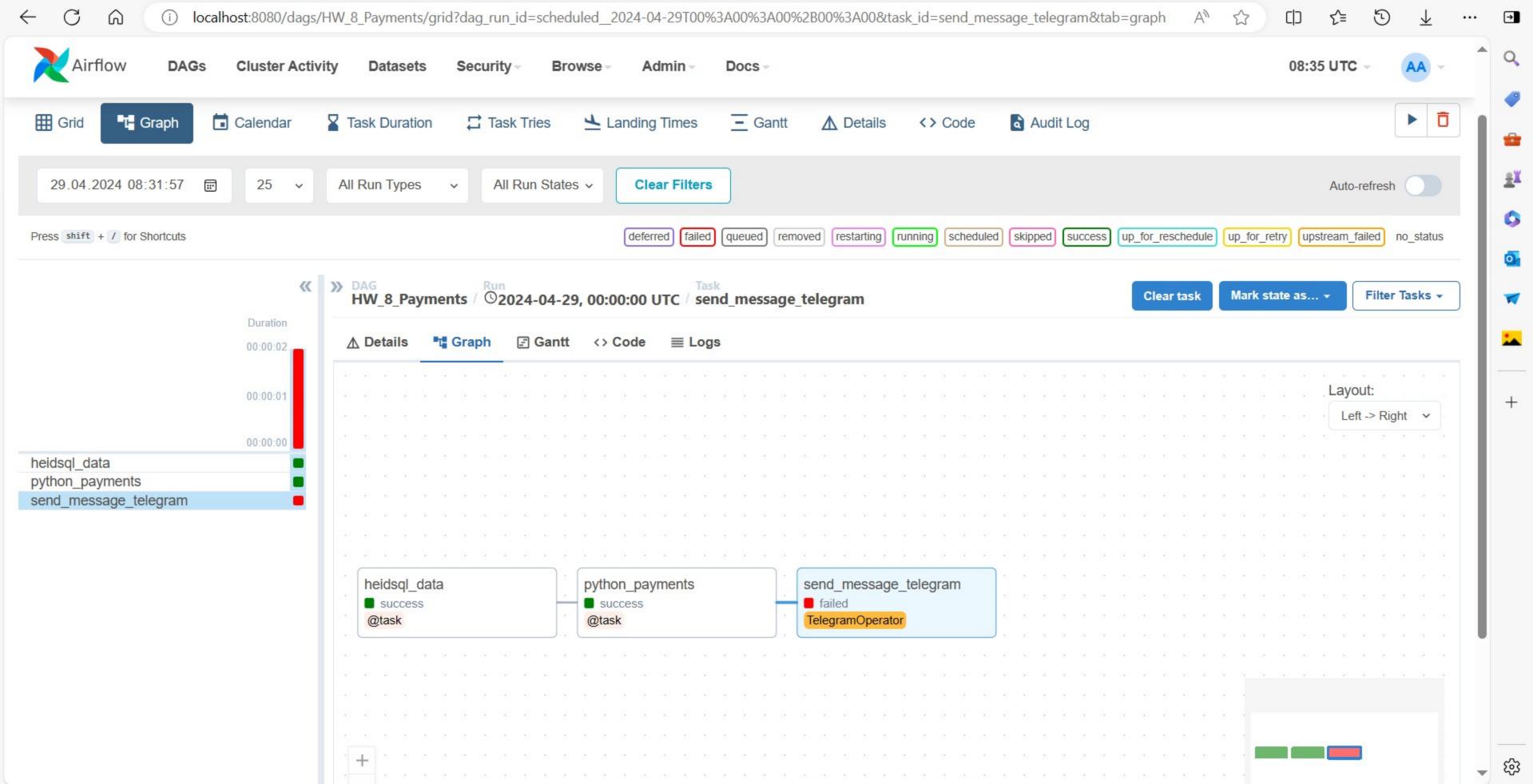
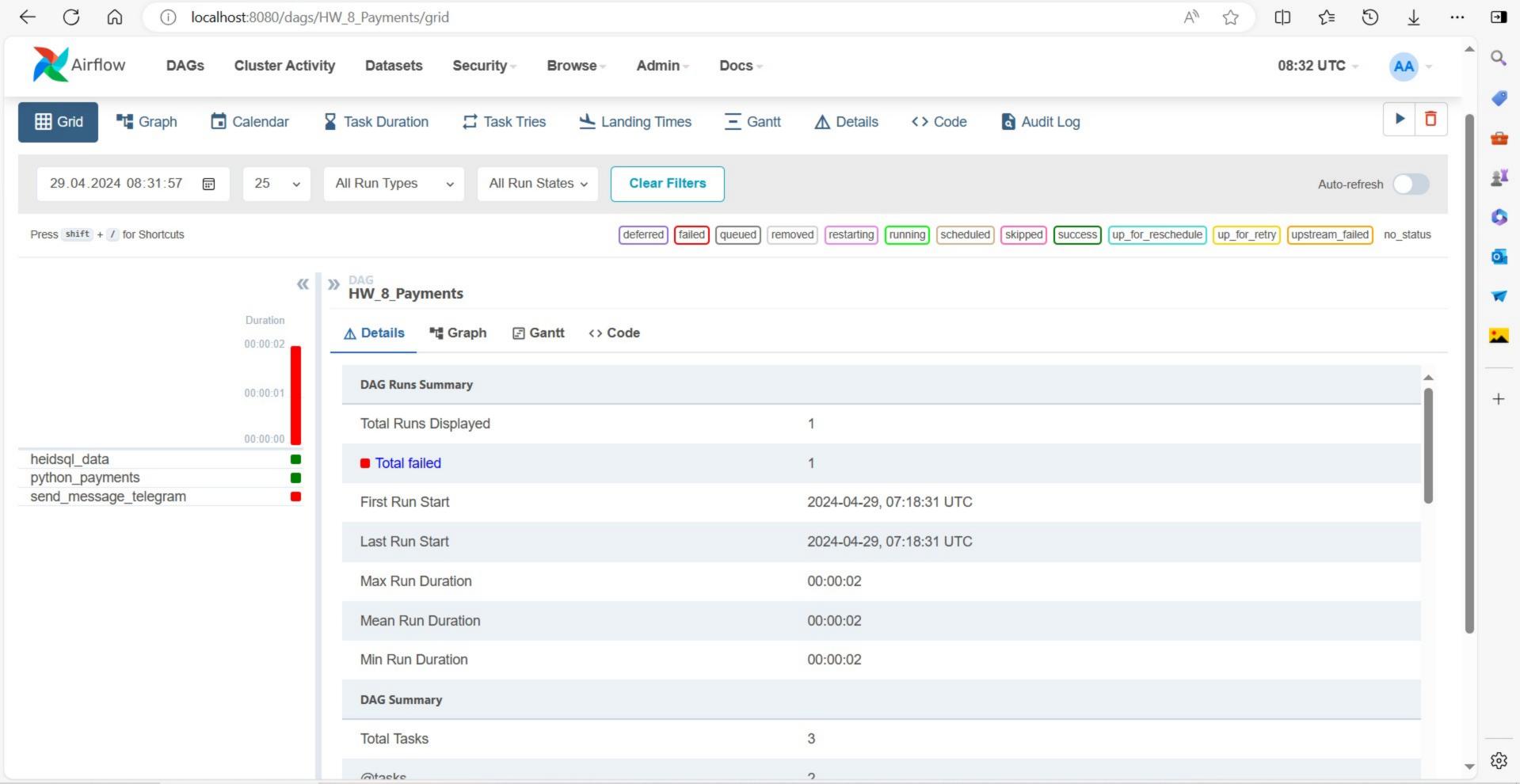


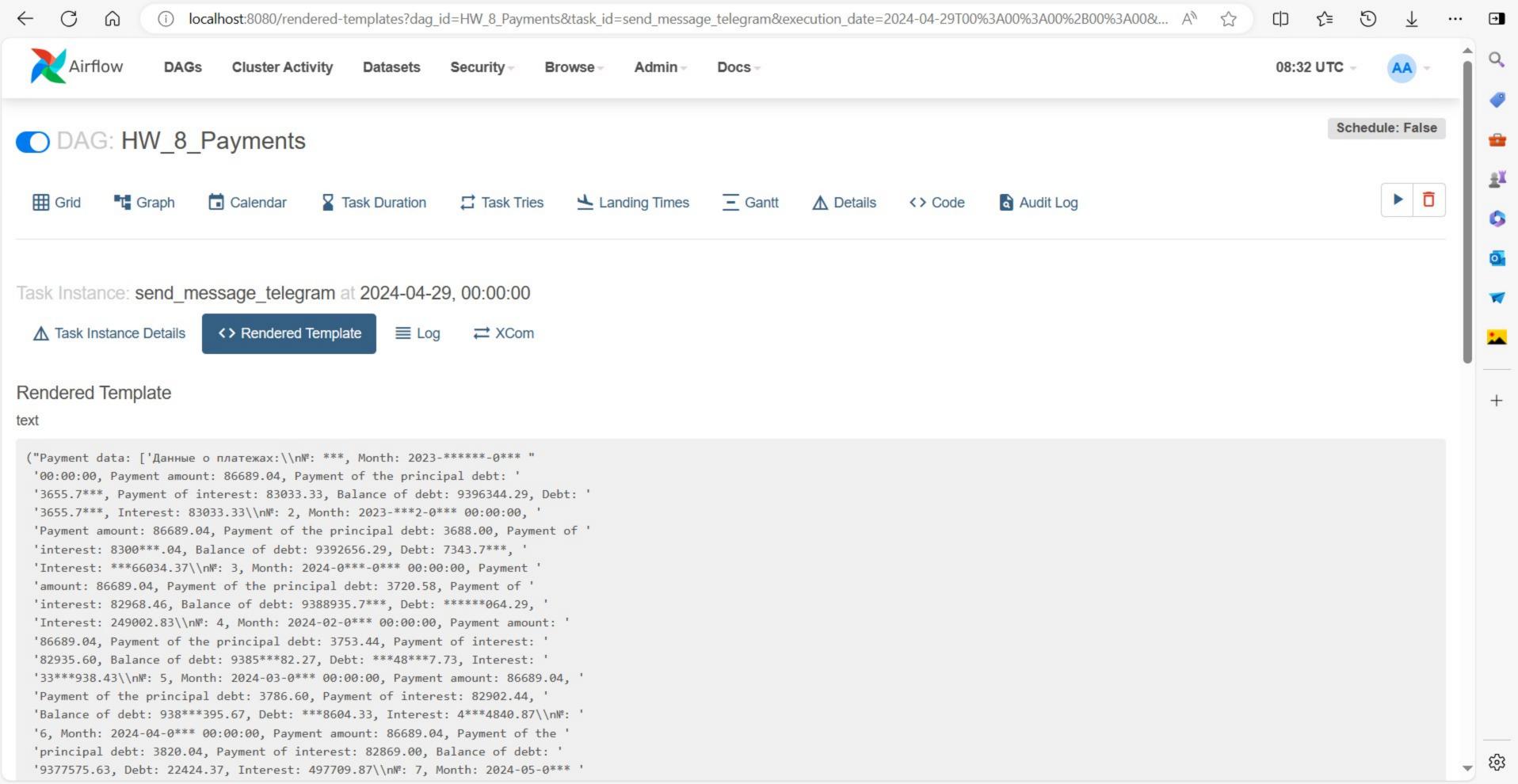
```
MobaTextEditor
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 HW_8_table_telegr...
 1 import os
 2 from datetime import timedelta
 3 import pendulum
 4 from sqlalchemy import create_engine, MetaData, Table
 5 from sqlalchemy sql import select
 6 from airflow.decorators import dag, task
 7 from airflow.providers.telegram.operators.telegram import TelegramOperator
 9 os.environ["no_proxy"] = "*"
11 def truncate(formatted text, limit):
      if len(formatted text) <= limit:</pre>
13
           return formatted text
14
      else:
           return formatted_text[:limit]
16
17 @dag(
      dag_id="HW_8_Payments",
18
19
      schedule="@once"
      start_date=pendulum.datetime(2024, 4, 29, tz="UTC"),
20
21
      catchup=False,
22
      dagrun_timeout=timedelta(minutes=60),
23)
24 def PaymentsETL():
25
26
      send_message_telegram_task = TelegramOperator(
27
           task_id='send_message_telegram',
          telegram_conn_id='telegram_default'
28
           token='6739587766:AAEyp8y2-LzFLASv7Z6FZPXb1riR15vKsTA',
29
           chat id='1420330277'.
30
          text=truncate('Payment data: {{ ti.xcom_pull(task_ids=["heidsql_data"], key="payments") }}', 4096) # Ограничение на 4096 символов в telegram
31
33
34
      @task(task_id='heidsql_data')
      def get_PaymentsETL(**kwargs):
36
          ti = kwargs['ti']
           con = create_engine("mysql://Airflow:1@localhost/spark")
38
39
          with con.connect() as connection:
40
              metadata = MetaData()
              payments_table = Table("Payments", metadata, autoload=True, autoload_with=con)
42
              query = select([payments_table])
43
              result = connection.execute(query)
44
              payment_data = result.fetchall()
46
              formatted_text = "Данные о платежах:\n"
47
48
              for payment in payment_data:
                   formatted_text += f"W: {payment['We']}, Month: {payment['Month']}, Payment amount: {round(payment['Payment amount'], 2)}, " \
49
                         f"Payment of the principal debt: {round(payment['Payment of the principal debt'], 2)}, " \
50
                         f"Payment of interest: {round(payment['Payment of interest'], 2)}, " \
51
                         f"Balance of debt: {round(payment['Balance of debt'], 2)}, Debt: {round(payment['Debt'], 2)}, Interest: {round(payment['Interest'], 2)}\n"
52
                                                                    63 lines
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                                                     Python
                                                                               Row #20
                                                                                           Col #57
```

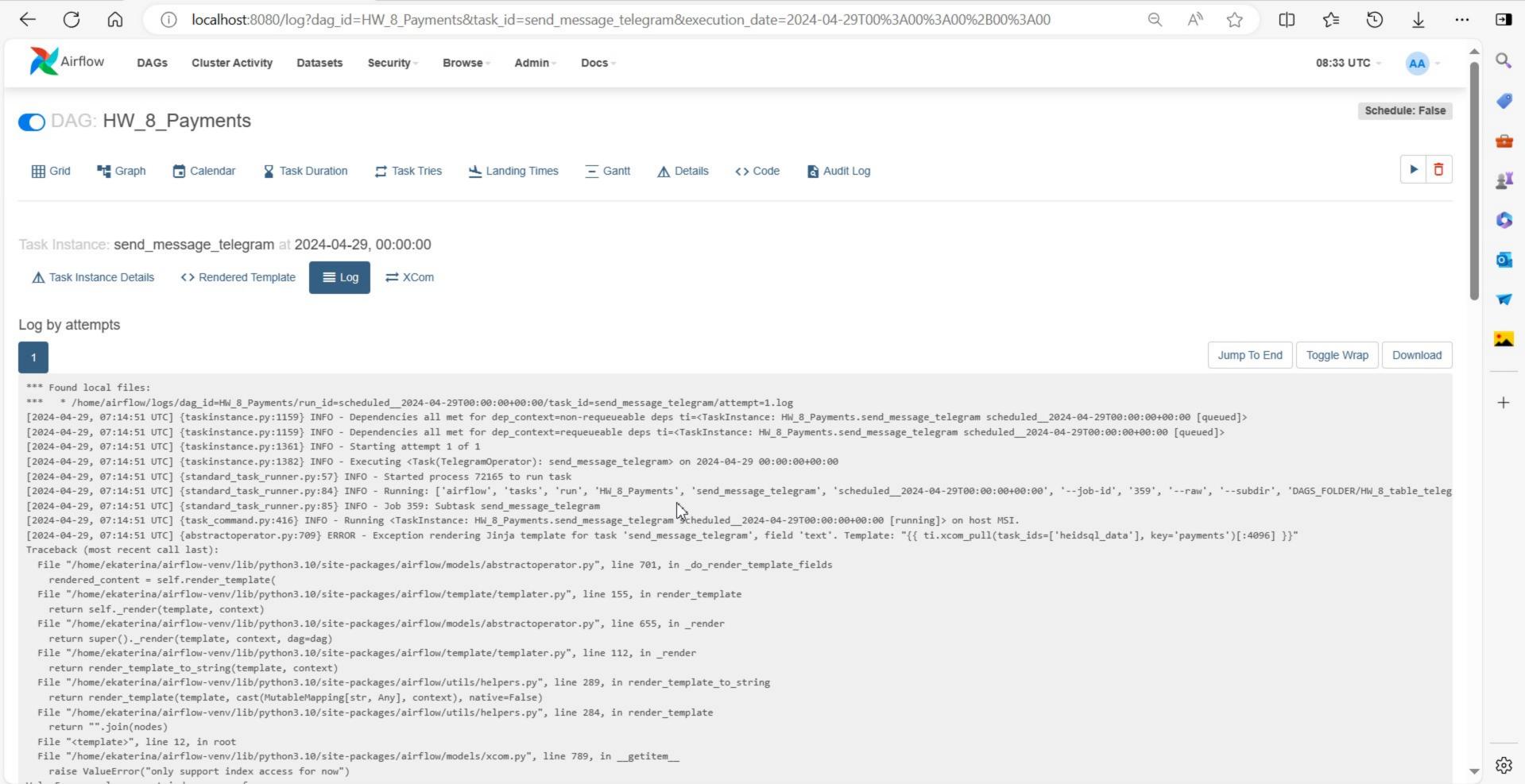
```
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 HW_8_table_telegr...
      if len(formatted text) <= limit:</pre>
          return formatted text
13
14
15
          return formatted_text[:limit]
16
17 @dag(
      dag_id="HW_8_Payments",
18
19
      schedule="@once"
      start_date=pendulum.datetime(2024, 4, 29, tz="UTC"),
20
21
      catchup=False.
22
      dagrun timeout=timedelta(minutes=60),
23)
24 def PaymentsETL():
25
26
      send_message_telegram_task = TelegramOperator(
          task_id='send_message_telegram',
28
          telegram_conn_id='telegram_default'
29
          token='6739587766:AAEyp8y2-LzFLASv7Z6FZPXb1riR15vKsTA',
          chat id='1420330277',
30
          text=truncate('Payment data: {{ ti.xcom_pull(task_ids=["heidsql_data"], key="payments") }}', 4096) # Ограничение на 4096 символов в telegram
31
33
34
      @task(task_id='heidsql_data')
      def get_PaymentsETL(**kwargs):
36
          ti = kwargs['ti']
          con = create_engine("mysql://Airflow:1@localhost/spark")
38
39
          with con.connect() as connection:
40
               metadata = MetaData()
              payments_table = Table("Payments", metadata, autoload=True, autoload_with=con)
              query = select([payments_table])
43
              result = connection.execute(query)
44
              payment_data = result.fetchall()
45
46
               formatted text = "Данные о платежах:\n"
48
               for payment in payment_data:
                   formatted_text += f"W: {payment['W']}, Month: {payment['Month']}, Payment amount: {round(payment['Payment amount'], 2)}, " \
49
50
                         f"Payment of the principal debt: {round(payment['Payment of the principal debt'], 2)}, " \
                         f"Payment of interest: {round(payment['Payment of interest'], 2)}, " \
51
                         f"Balance of debt: {round(payment['Balance of debt'], 2)}, Debt: {round(payment['Debt'], 2)}, Interest: {round(payment['Interest'], 2)}\n"
53
54
          ti.xcom_push(key='payments', value=formatted_text) # Сохраняем данные в ХСот
55
56
      @task(task id='python payments')
      def get_Payments(**kwargs):
58
          print("PaymentsETL")
59
60
      get_PaymentsETL() >> get_Payments() >> send_message_telegram_task
61
62 dag = PaymentsETL()
63
C:\Users\A4F7~1\AppData\Local\Temp\Mxt236\RemoteFiles\67206 DOS
                                                                   63 lines
                                                                              Row #20
                                                                                          Col #57
```











```
MSI.
*** Found local files:
/home/airflow/logs/dag id=HW 8 Payments/run id=scheduled 2024-04-29T00:00:00+0
0:00/task id=send message telegram/attempt=1.log
[2024-04-29T17:14:51.688+1000] {taskinstance.py:1159} INFO - Dependencies all
met for dep context=non-requeueable deps ti=<TaskInstance:
HW_8_Payments.send_message_telegram scheduled__2024-04-29T00:00:00+00:00
[queued]>
[2024-04-29T17:14:51.698+1000] {taskinstance.py:1159} INFO - Dependencies all
met for dep_context=requeueable deps ti=<TaskInstance:</pre>
HW 8 Payments.send message telegram scheduled 2024-04-29T00:00:00+00:00
[queued]>
[2024-04-29T17:14:51.698+1000] {taskinstance.py:1361} INFO - Starting attempt 1
of 1
[2024-04-29T17:14:51.718+1000] {taskinstance.py:1382} INFO - Executing
<Task(TelegramOperator): send message telegram> on 2024-04-29 00:00:00+00:00
[2024-04-29T17:14:51.720+1000] {standard_task_runner.py:57} INFO - Started
process 72165 to run task
[2024-04-29T17:14:51.724+1000] {standard_task_runner.py:84} INFO - Running:
['airflow', 'tasks', 'run', 'HW_8_Payments', 'send_message_telegram',
'scheduled__2024-04-29T00:00:00+00:00', '--job-id', '359', '--raw', '--subdir', 'DAGS_FOLDER/HW_8_table_telegram.py', '--cfg-path', '/tmp/tmp0dtekbri']
[2024-04-29T17:14:51.727+1000] {standard_task_runner.py:85} INFO - Job 359:
Subtask send_message_telegram
[2024-04-29T17:14:51.772+1000] {task_command.py:416} INFO - Running
<TaskInstance: HW 8 Payments.send message telegram
scheduled 2024-04-29T00:00:00+00:00 [running]> on host MSI.
[2024-04-29T17:14:51.822+1000] {abstractoperator.py:709} ERROR - Exception
rendering Jinja template for task 'send_message_telegram', field 'text'.
Template: "{{ ti.xcom_pull(task_ids=['heidsql_data'], key='payments')[:4096]
}}"
Traceback (most recent call last):
  File
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/models/abstr
actoperator.py", line 701, in do render template fields
    rendered_content = self.render_template(
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/template/tem
plater.py", line 155, in render_template
    return self._render(template, context)
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/models/abstr
actoperator.py", line 655, in render
    return super(). render(template, context, dag=dag)
  File
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/template/tem
plater.py", line 112, in _render
    return render_template_to_string(template, context)
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/utils/helper
s.py", line 289, in render template to string
    return render template(template, cast(MutableMapping[str, Any], context),
native=False)
```

```
File
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/utils/helper
s.py", line 284, in render_template
    return "".join(nodes)
  File "<template>", line 12, in root
  File
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/models/xcom.
py", line 789, in __getitem__
    raise ValueError("only support index access for now")
ValueError: only support index access for now
[2024-04-29T17:14:51.828+1000] {taskinstance.py:1937} ERROR - Task failed with
exception
Traceback (most recent call last):
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/models/taski
nstance.py", line 1518, in _run_raw_task
    self. execute task with callbacks(context, test mode, session=session)
  File
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/models/taski
nstance.py", line 1647, in _execute_task_with_callbacks
    task orig = self.render templates(context=context)
  File
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/models/taski
nstance.py", line 2285, in render templates
    original_task.render_template_fields(context)
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/models/baseo
perator.py", line 1243, in render template fields
    self. do render template fields(self, self.template fields, context,
jinja_env, set())
  File
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/utils/sessio
n.py", line 79, in wrapper
    return func(*args, session=session, **kwargs)
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/models/abstr
actoperator.py", line 701, in _do_render_template_fields
    rendered content = self.render template(
  File
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/template/tem
plater.py", line 155, in render_template
    return self._render(template, context)
  File
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/models/abstr
actoperator.py", line 655, in render
    return super()._render(template, context, dag=dag)
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/template/tem
plater.py", line 112, in _render
    return render template to string(template, context)
  File
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/utils/helper
s.py", line 289, in render_template_to_string
    return render template(template, cast(MutableMapping[str, Any], context),
```

```
native=False)
  File
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/utils/helper
s.py", line 284, in render template
    return "".join(nodes)
  File "<template>", line 12, in root
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/models/xcom.
py", line 789, in __getitem__
    raise ValueError("only support index access for now")
ValueError: only support index access for now
[2024-04-29T17:14:51.836+1000] {taskinstance.py:1400} INFO - Marking task as
FAILED. dag_id=HW_8_Payments, task_id=send_message_telegram,
execution_date=20240429T000000, start_date=20240429T07***45***,
end date=20240429T07***45***
[2024-04-29T17:14:51.857+1000] {standard_task_runner.py:104} ERROR - Failed to
execute job 359 for task send message telegram (only support index access for
now; 72165)
[2024-04-29T17:14:51.896+1000] {local_task_job_runner.py:228} INFO - Task
exited with return code 1
[2024-04-29T17:14:51.919+1000] {taskinstance.py:2778} INFO - 0 downstream tasks
scheduled from follow-on schedule check
[2024-04-29T17:18:33.304+1000] {taskinstance.py:1159} INFO - Dependencies all
met for dep context=non-requeueable deps ti=<TaskInstance:
HW 8 Payments.send message telegram scheduled 2024-04-29T00:00:00+00:00
[queued]>
[2024-04-29T17:18:33.321+1000] {taskinstance.py:1159} INFO - Dependencies all
met for dep context=requeueable deps ti=<TaskInstance:
HW 8 Payments.send message telegram scheduled 2024-04-29T00:00:00+00:00
[queued]>
[2024-04-29T17:18:33.322+1000] {taskinstance.py:1361} INFO - Starting attempt 1
of 1
[2024-04-29T17:18:33.353+1000] {taskinstance.py:1382} INFO - Executing
<Task(TelegramOperator): send_message_telegram> on 2024-04-29 00:00:00+00:00
[2024-04-29T17:18:33.357+1000] {standard_task_runner.py:57} INFO - Started
process 73843 to run task
[2024-04-29T17:18:33.362+1000] {standard_task_runner.py:84} INFO - Running:
['airflow', 'tasks', 'run', 'HW_8_Payments', 'send_message_telegram',
'scheduled__2024-04-29T00:00:00+00:00', '--job-id', '364', '--raw', '--subdir',
'DAGS_FOLDER/HW_8_table_telegram.py', '--cfg-path', '/tmp/tmpipf922_f']
[2024-04-29T17:18:33.366+1000] {standard_task_runner.py:85} INFO - Job 364:
Subtask send_message_telegram
[2024-04-29T17:18:33.435+1000] {task_command.py:416} INFO - Running
<TaskInstance: HW 8 Payments.send message telegram
scheduled 2024-04-29T00:00:00+00:00 [running]> on host MSI.
[2024-04-29T17:18:33.493+1000] {abstractoperator.py:709} ERROR - Exception
rendering Jinja template for task 'send_message_telegram', field 'text'.
Template: "{{ ti.xcom_pull(task_ids=['heidsql_data'], key='payments')[:4096]
}}"
Traceback (most recent call last):
 File
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/models/abstr
actoperator.py", line 701, in _do_render_template_fields
    rendered_content = self.render_template(
```

```
File
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/template/tem
plater.py", line 155, in render_template
    return self. render(template, context)
  File
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/models/abstr
actoperator.py", line 655, in render
    return super()._render(template, context, dag=dag)
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/template/tem
plater.py", line 112, in _render
    return render template to string(template, context)
  File
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/utils/helper
s.py", line 289, in render_template_to_string
    return render template(template, cast(MutableMapping[str, Any], context),
native=False)
  File
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/utils/helper
s.py", line 284, in render_template
    return "".join(nodes)
  File "<template>", line 12, in root
  File
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/models/xcom.
py", line 789, in __getitem__
    raise ValueError("only support index access for now")
ValueError: only support index access for now
[2024-04-29T17:18:33.494+1000] {taskinstance.py:1937} ERROR - Task failed with
exception
Traceback (most recent call last):
  File
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/models/taski
nstance.py", line 1518, in _run_raw task
    self._execute_task_with_callbacks(context, test_mode, session=session)
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/models/taski
nstance.py", line 1647, in _execute_task_with_callbacks
    task orig = self.render templates(context=context)
  File
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/models/taski
nstance.py", line 2285, in render_templates
    original_task.render_template_fields(context)
  File
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/models/baseo
perator.py", line 1243, in render template fields
    self. do render template fields(self, self.template fields, context,
jinja_env, set())
  File
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/utils/sessio
n.py", line 79, in wrapper
    return func(*args, session=session, **kwargs)
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/models/abstr
actoperator.py", line 701, in _do_render_template_fields
```

```
rendered_content = self.render_template(
  File
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/template/tem
plater.py", line 155, in render template
    return self. render(template, context)
  File
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/models/abstr
actoperator.py", line 655, in _render
    return super()._render(template, context, dag=dag)
  File
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/template/tem
plater.py", line 112, in _render
    return render template to string(template, context)
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/utils/helper
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"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/utils/helper
s.py", line 284, in render template
    return "".join(nodes)
  File "<template>", line 12, in root
"/home/ekaterina/airflow-venv/lib/python3.10/site-packages/airflow/models/xcom.
py", line 789, in __getitem__
    raise ValueError("only support index access for now")
ValueError: only support index access for now
[2024-04-29T17:18:33.500+1000] {taskinstance.py:1400} INFO - Marking task as
FAILED. dag_id=HW_8_Payments, task_id=send_message_telegram,
execution date=20240429T000000, start date=20240429T07***833,
end_date=20240429T07***833
[2024-04-29T17:18:33.519+1000] {standard_task_runner.py:104} ERROR - Failed to
execute job 364 for task send_message_telegram (only support index access for
now; 73843)
[2024-04-29T17:18:33.533+1000] {local task job runner.py:228} INFO - Task
exited with return code 1
[2024-04-29T17:18:33.551+1000] {taskinstance.py:2778} INFO - 0 downstream tasks
scheduled from follow-on schedule check
```