

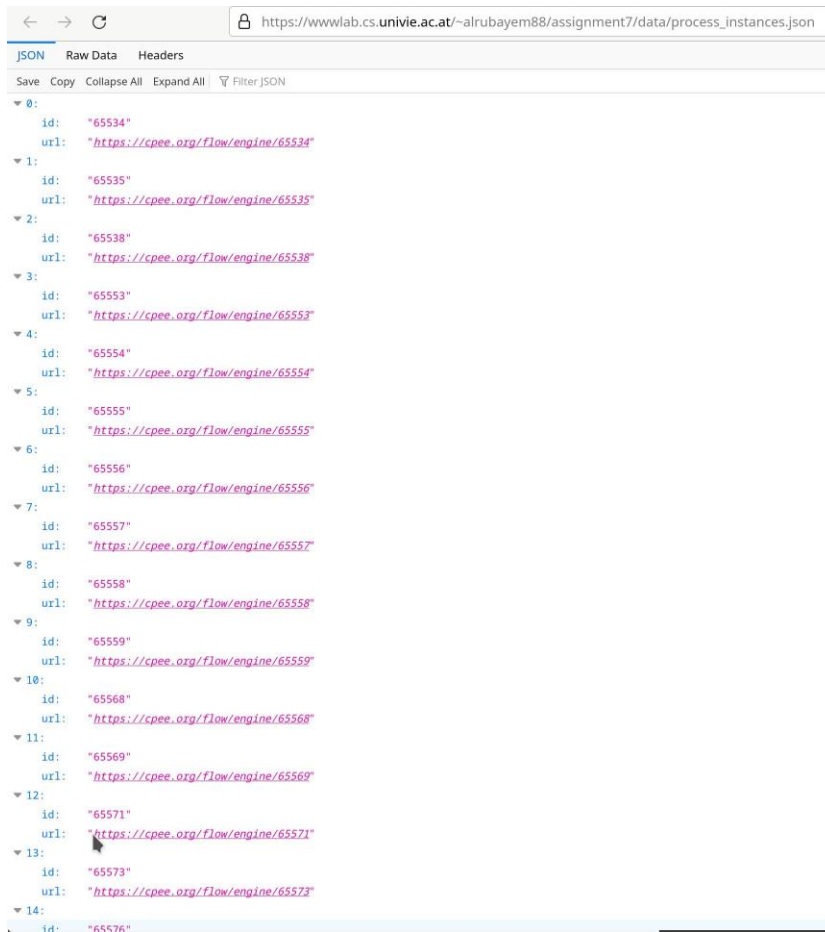
Link to the last process instance in the cpee cockpit:

<https://cpee.org/flow/engine/65640/>

<https://cpee.org/flow/?monitor=https://cpee.org/flow/engine/65640/>

Link to the overview of generated process instances:

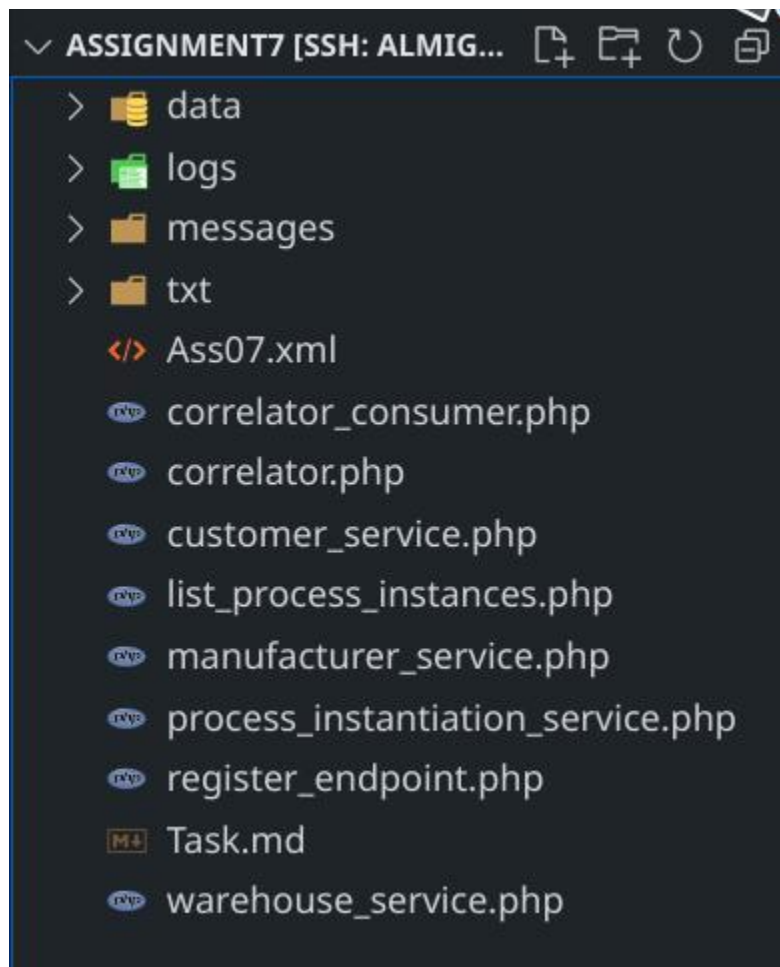
https://wwwlab.cs.univie.ac.at/~alrubayem88/assignment7/data/process_instances.json



The screenshot shows a web browser window with the address bar displaying the URL: https://wwwlab.cs.univie.ac.at/~alrubayem88/assignment7/data/process_instances.json. The browser interface includes tabs for 'JSON', 'Raw Data', and 'Headers', with 'JSON' selected. Below the tabs are buttons for 'Save', 'Copy', 'Collapse All', 'Expand All', and a 'Filter JSON' dropdown. The main content area displays a JSON array of 15 objects, each representing a process instance. Each object contains an 'id' and a 'url' field. The 'id' values range from 65534 to 65576, and the 'url' values are all 'https://cpee.org/flow/engine/[id]'. The array is expanded, showing the details for each instance.

Index	id	url
0	"65534"	"https://cpee.org/flow/engine/65534"
1	"65535"	"https://cpee.org/flow/engine/65535"
2	"65538"	"https://cpee.org/flow/engine/65538"
3	"65553"	"https://cpee.org/flow/engine/65553"
4	"65554"	"https://cpee.org/flow/engine/65554"
5	"65555"	"https://cpee.org/flow/engine/65555"
6	"65556"	"https://cpee.org/flow/engine/65556"
7	"65557"	"https://cpee.org/flow/engine/65557"
8	"65558"	"https://cpee.org/flow/engine/65558"
9	"65559"	"https://cpee.org/flow/engine/65559"
10	"65568"	"https://cpee.org/flow/engine/65568"
11	"65569"	"https://cpee.org/flow/engine/65569"
12	"65571"	"https://cpee.org/flow/engine/65571"
13	"65573"	"https://cpee.org/flow/engine/65573"
14	"65576"	"https://cpee.org/flow/engine/65576"

Full Solution



Database file:

```
data > {} inventory.json > [ ] Outdoors > {} 2 > name
1 {
2   "Electronics": [
3     {
4       "name": "Camera",
5       "quantity": 10
6     },
7     {
8       "name": "Laptop",
9       "quantity": 510
10    },
11    {
12      "name": "Smartphone",
13      "quantity": 525
14    }
15  ],
16  "Clothing": [
17    {
18      "name": "T-Shirt",
19      "quantity": 550
20    },
21    {
22      "name": "Jeans",
23      "quantity": 538
24    },
25    {
26      "name": "Jacket",
27      "quantity": 530
28    }
29  ]
30 }
```

P1 – customer service:

curl -X GET "https://wwwlab.cs.univie.ac.at/~alrubayem88/assignment7/customer_service.php"

```
maith@debian:~$ curl -X GET "https://wwwlab.cs.univie.ac.at/~alrubayem88/assignment7/customer_service.php" | jq '.'
% Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
           Dload  Upload   Total   Spent    Left     Speed

100  151  100    151    0     0   175      0  --:--:-- --:--:-- --:--:--   175
[
  {
    "category": "Electronics",
    "material_name": "Smartphone"
  },
  {
    "category": "Books",
    "material_name": "Science"
  },
  {
    "category": "Outdoors",
    "material_name": "Tent"
  }
]
```

P2 – customer service:

curl -X GET

https://wwwlab.cs.univie.ac.at/~alrubayem88/assignment7/warehouse_service.php?action=get_categories

```
maith@debian:~$ curl -X GET "https://wwwlab.cs.univie.ac.at/~alrubayem88/assignment7/warehouse_service.php?action=get_categories" | jq '.'
```

% Total	% Received	% Xferd	Average Speed	Time	Time	Time	Current	
			Dload	Upload	Total	Spent	Left	Speed
100	65	100	65	0	0	398	0	--:--:-- --:--:-- --:--:-- 398

```
[
  "Electronics",
  "Clothing",
  "Furniture",
  "Tools",
  "Books",
  "Outdoors"
]
```

curl -X GET

https://wwwlab.cs.univie.ac.at/~alrubayem88/assignment7/warehouse_service.php?action=get_materials&category=Electronics

```
maith@debian:~$ curl -X GET "https://wwwlab.cs.univie.ac.at/~alrubayem88/assignment7/warehouse_service.php?action=get_materials&category=Electronics" | jq '.'
```

% Total	% Received	% Xferd	Average Speed	Time	Time	Time	Current	
			Dload	Upload	Total	Spent	Left	Speed
100	103	100	103	0	0	632	0	--:--:-- --:--:-- --:--:-- 635

```
[
  {
    "name": "Camera",
    "quantity": 10
  },
  {
    "name": "Laptop",
    "quantity": 510
  },
  {
    "name": "Smartphone",
    "quantity": 525
  }
]
```

curl -X GET

https://wwwlab.cs.univie.ac.at/~alrubayem88/assignment7/warehouse_service.php?action=get_quantity&category=Electronics&item=Camera

```
maith@debian:~$ curl -X GET "https://wwwlab.cs.univie.ac.at/~alrubayem88/assignment7/warehouse_service.php?action=get_quantity&category=Electronics&item=Camera" | jq '.'
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left   Speed
100    2100    100    2100    0     0    11      0  --:--:-- --:--:-- --:--:--    11
10
maith@debian:~$ curl -X GET "https://wwwlab.cs.univie.ac.at/~alrubayem88/assignment7/warehouse_service.php?action=get_quantity&category=Electronics&item=Camera"
10maith@debian:~$
```

curl -X GET

https://wwwlab.cs.univie.ac.at/~alrubayem88/assignment7/warehouse_service.php?action=update_quantity&category=Electronics&item=Camera&quantity=500

```
maith@debian:~$ curl -X GET "https://wwwlab.cs.univie.ac.at/~alrubayem88/assignment7/warehouse_service.php?action=update_quantity&category=Electronics&item=Camera&quantity=500"
{"message":"Quantity updated to 500 for Camera"}maith@debian:~$
```

P3: Manufacturer Service

curl -X GET "https://wwwlab.cs.univie.ac.at/~alrubayem88/assignment7/manufacturer_service.php?id=5"

```
maith@debian:~$ curl -X GET "https://wwwlab.cs.univie.ac.at/~alrubayem88/assignment7/manufacturer_service.php?id=5"
{
  "description": "Quality Check In Progress",
  "progress": "5"
}maith@debian:~$ curl -X GET "https://wwwlab.cs.univie.ac.at/~alrubayem88/assignment7/manufacturer_service.php?id=1"
{
  "description": "Order Received",
  "progress": "1"
}maith@debian:~$
```

Initiate instance:

curl -X POST

```
"https://wwwlab.cs.univie.ac.at/~alrubayem88/assignment7/process_instantiation_service.php" \  
-F "behavior=fork_running" \  
-F "xml=https://wwwlab.cs.univie.ac.at/~alrubayem88/assignment7/Ass07.xml" \  
-H "Content-Type: multipart/form-data"
```

```
maith@debian:~$ curl -X POST "https://wwwlab.cs.univie.ac.at/~alrubayem88/assignment7/process_instantiation_service.php" \  
-F "behavior=fork_running" \  
-F "xml=https://wwwlab.cs.univie.ac.at/~alrubayem88/assignment7/Ass07.xml" \  
-H "Content-Type: multipart/form-data" \  
{ "success": "Process instance created successfully.", "data": { "CPEE-INSTANCE": "65645", "CPEE-INSTANCE-URL": "https:\\\\cpee.org\\flow\\engine\\65645", "CPEE-INSTANCE-UUID": "d2991075-61b1-41ec-b75c-136463a44292", "CPEE-BEHAVIOR": "fork_running" } }ma
```

List of instances:

curl -X GET "https://wwwlab.cs.univie.ac.at/~alrubayem88/assignment7/list_process_instances.php"

```
maith@debian:~$ curl -X GET "https://wwwlab.cs.univie.ac.at/~alrubayem88/assignment7/list_process_instances.php" \  
{ \  
  { \  
    "id": "65534", \  
    "url": "https:\\\\cpee.org\\flow\\?monitor=https:\\\\cpee.org\\flow\\engine\\65534" \  
  }, \  
  { \  
    "id": "65535", \  
    "url": "https:\\\\cpee.org\\flow\\?monitor=https:\\\\cpee.org\\flow\\engine\\65535" \  
  }, \  
  { \  
    "id": "65538", \  
    "url": "https:\\\\cpee.org\\flow\\?monitor=https:\\\\cpee.org\\flow\\engine\\65538" \  
  }, \  
}
```


Correlator:

```
curl -X POST "https://wwwlab.cs.univie.ac.at/~alrubayem88/assignment7/correlator.php" \  
-H "Content-Type: application/json" \  
-H "Destination: https://example.com/destination_endpoint" \  
-H "CPEE-INSTANCE: example-instance" \  
-H "CPEE-INSTANCE-UUID: example-uuid" \  
-d '{"progress": "5", "description": "Stage Complete"}'
```

```
maith@debian:~$ curl -X POST "https://wwwlab.cs.univie.ac.at/~alrubayem88/assignment7/correlator.php" \  
-H "Content-Type: application/json" \  
-H "Destination: https://example.com/destination_endpoint" \  
-H "CPEE-INSTANCE: example-instance" \  
-H "CPEE-INSTANCE-UUID: example-uuid" \  
-d '{"progress": "5", "description": "Stage Complete"}' \  
{ "status": "success" }maith@debian:~$
```

```
curl -X GET "https://wwwlab.cs.univie.ac.at/~alrubayem88/assignment7/correlator.php?action=get_tag"
```

```
maith@debian:~$ curl -X GET "https://wwwlab.cs.univie.ac.at/~alrubayem88/assignment7/correlator.php?action=get_tag" \  
{ "status": "success", "tag": "6689de4b8d6b8" }maith@debian:~$
```

Consumer:

```
curl -X POST https://wwwlab.cs.univie.ac.at/~alrubayem88/assignment7/correlator\_consumer.php
```

```
maith@debian:~$ curl -X POST "https://wwwlab.cs.univie.ac.at/~alrubayem88/assignment7/correlator_consumer.php" \  
{ "status": "success", "message": "Message processed and forwarded successfully.", "destination": null }maith@debian:~$
```