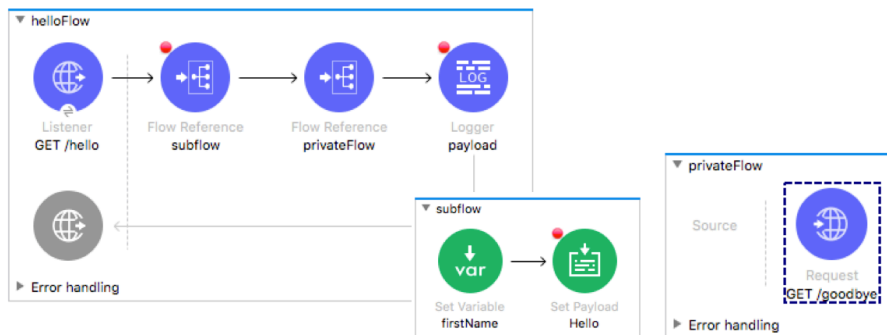


Walkthrough 7-1: Create and reference subflows and private flows

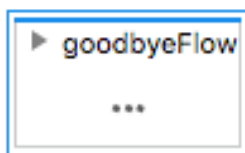
In this walkthrough, you continue to work with apdev-examples.xml. You will:

- Extract processors into separate subflows and private flows.
- Use the Flow Reference component to reference other flows.
- Explore event data persistence through subflows and private flows.



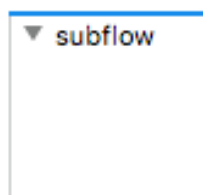
Collapse a flow

1. Return to apdev-examples.xml in Anypoint Studio.
2. Click the arrow to the left of the goodbyeFlow to collapse it.

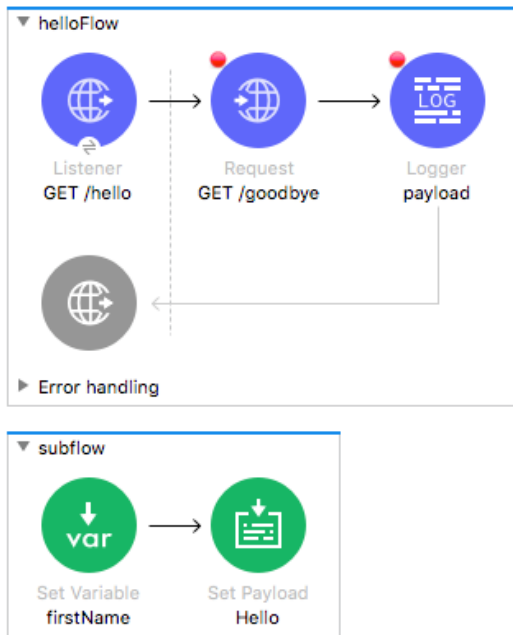


Create a subflow

3. In the Mule Palette, select Core.
4. Drag a Sub Flow scope from the Mule Palette and drop it between the existing flows in the canvas.
5. Change the name of the flow to subflow.

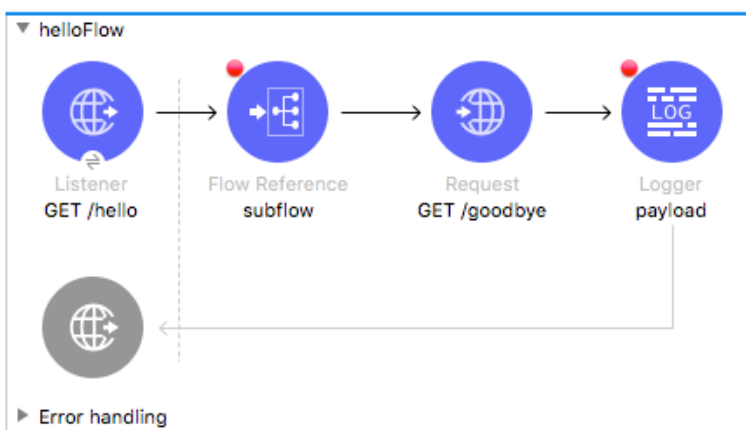


6. Select the Set Variable and Set Payload transformers in helloFlow and drag them into the subflow.



Reference a subflow

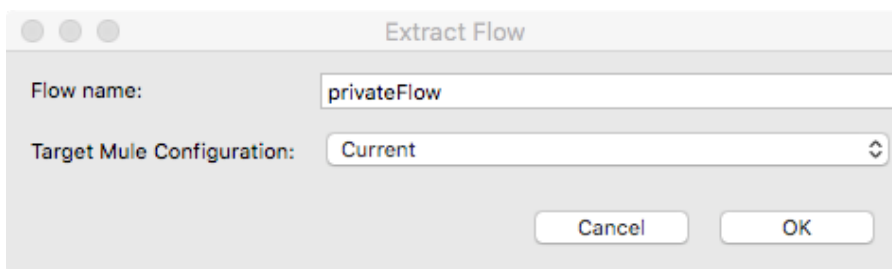
7. Drag a Flow Reference component from the Mule Palette and drop it into helloFlow between the GET /hello HTTP Listener and the GET /goodbye HTTP Request.
8. In the Flow Reference properties view, set the flow name to subflow.
9. Add a breakpoint to the subflow Flow Reference.
10. Remove the breakpoint from the GET /goodbye HTTP Request.



Extract processors into a subflow

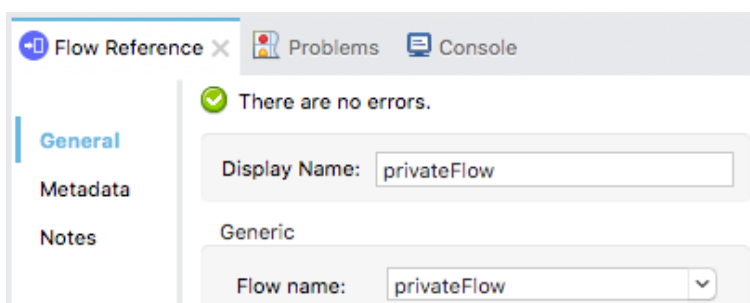
11. Right-click the GET /goodbye HTTP Request and select Extract to > Flow.

12. In the Extract Flow dialog box, set the flow name to privateFlow.

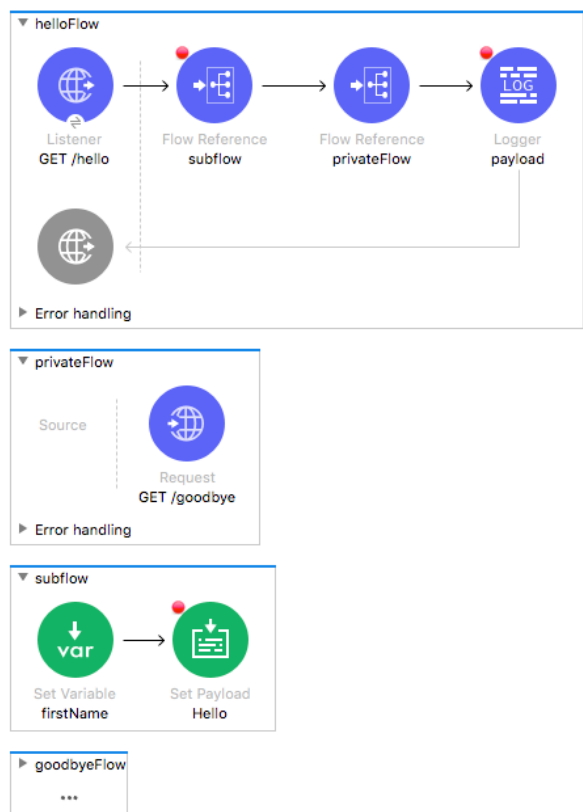


13. Leave the target Mule configuration set to current and click OK.

14. Look at the new Flow Reference properties view; the flow name should already be set to privateFlow – and the display name will be set once you navigate here.

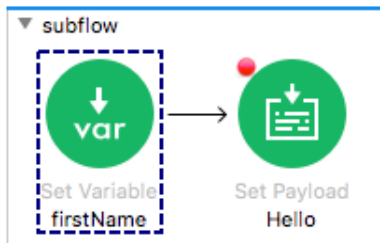


15. Drag privateFlow above subflow in the canvas.



Debug the application

16. Save the file to redeploy the application in debug mode.
17. In Advanced REST Client, send the same request to <http://localhost:8081/hello?fname=Maxwell>.
18. In the Mule Debugger, step through the application, watching as you step into and out of the flows and subflows.



19. Step through the rest of the application.
20. In Advanced REST Client, send the same request again.
21. In the Mule Debugger, step through the application again, this time watching the values of the attributes, payload, and variables in each of the flows.

Name	Value
▶ Attributes	org.mule.extension.http.a
ⓐ Component Path	privateFlow/processors/0
▶ DataType	SimpleDataType{type=jav
ⓐ Message	
ⓐ Payload (mimeType="*/";)	Hello
▼ Variables	size = 1
▶ 0	firstName=Maxwell

firstName=Maxwell

```
graph LR; subflow --> S1((Request  
GET /goodbye));
```

22. Step through the rest of the application.
23. Switch to the Mule Design perspective.