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Riding the Camel

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Riding the Camel

Camel is Open Source routing and mediation tool which simplifies development, deployment, execution and monitoring of integration applications through the use of built-in Enterprise Integration Patterns and numerous connectors for data interchange

- Goal today
  - Introduce a sample Camel-based web service application
  - Have the student review, build and execute this app
  - Review/verify the results
  - (Optionally) Use a commercial web service client to invoke the Web Service

Application: Using Camel Implement and Test a Simple Web Service

Requirements:

- Web Service implementation
  - Camel route uses a custom processor (Java code) to provide simple customer information (saveCustomer, GetAllCustomers, GetCustomerByName)
    - Accept an incoming message using SOAP/HTTP
    - Process message based on header = operation type
    - Return results as SOAP message
  - Implementation maintains a small “database” of customer information

Application: Using Camel Implement and Test a Simple Web Service (cont.)

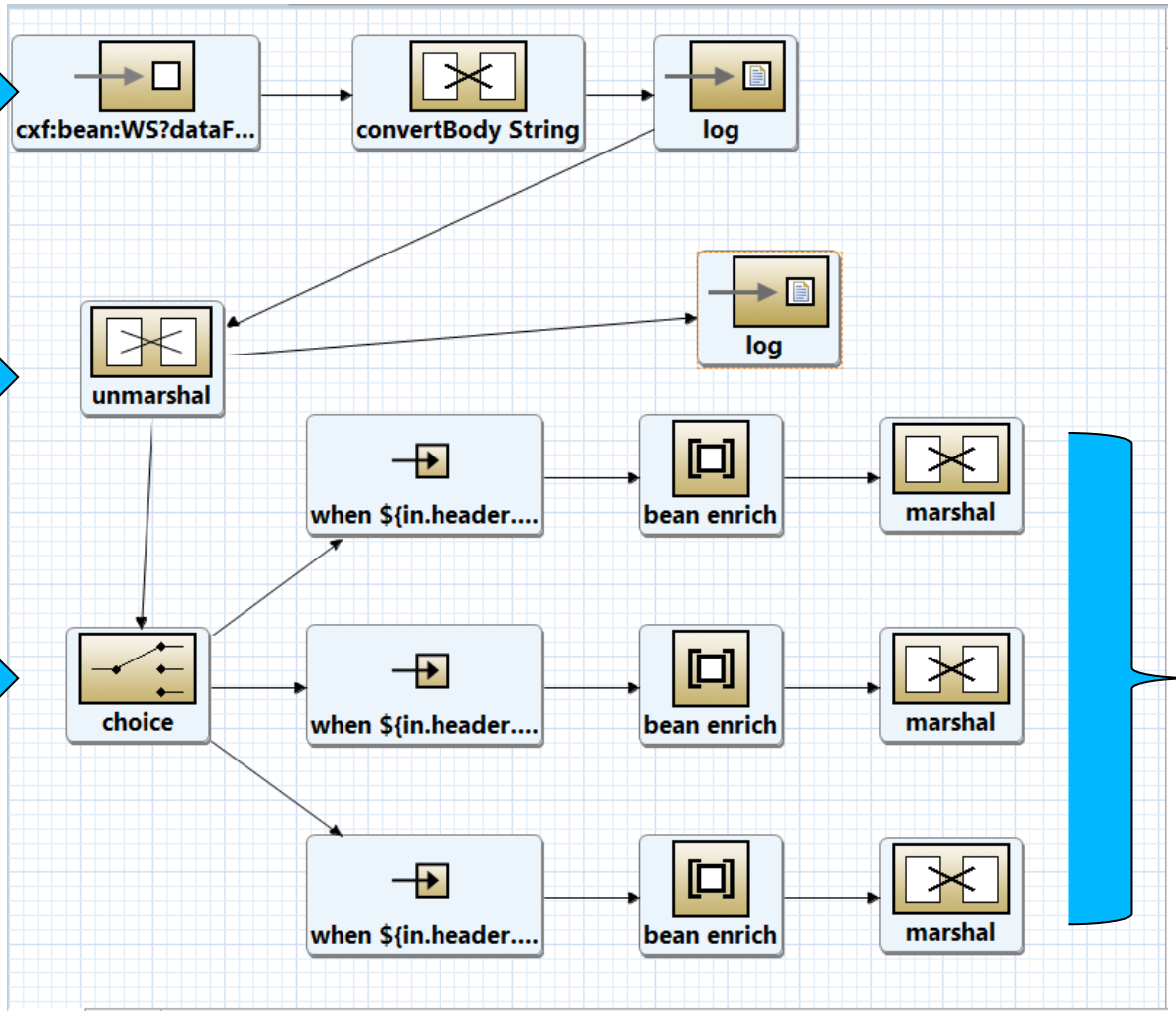
- Web service test clients
  - Camel route – pick up a file with customer name information, create a SOAP request to create a customer with this name, invoke on Web service to perform the operation to save customer info and display the returning message
  - (Optional) SOAPUI test client … GUI-based tool to easily create requests and submit them and display results

Route – Web Service Implementation

1) SOAP Message with operation in header

2) Convert SOAP to Java Objects

3) Route based on Operation Name



4) Execute code based on operation and return SOAP response

Camel Route for Web Service Implementation

Accepts the incoming SOAP message

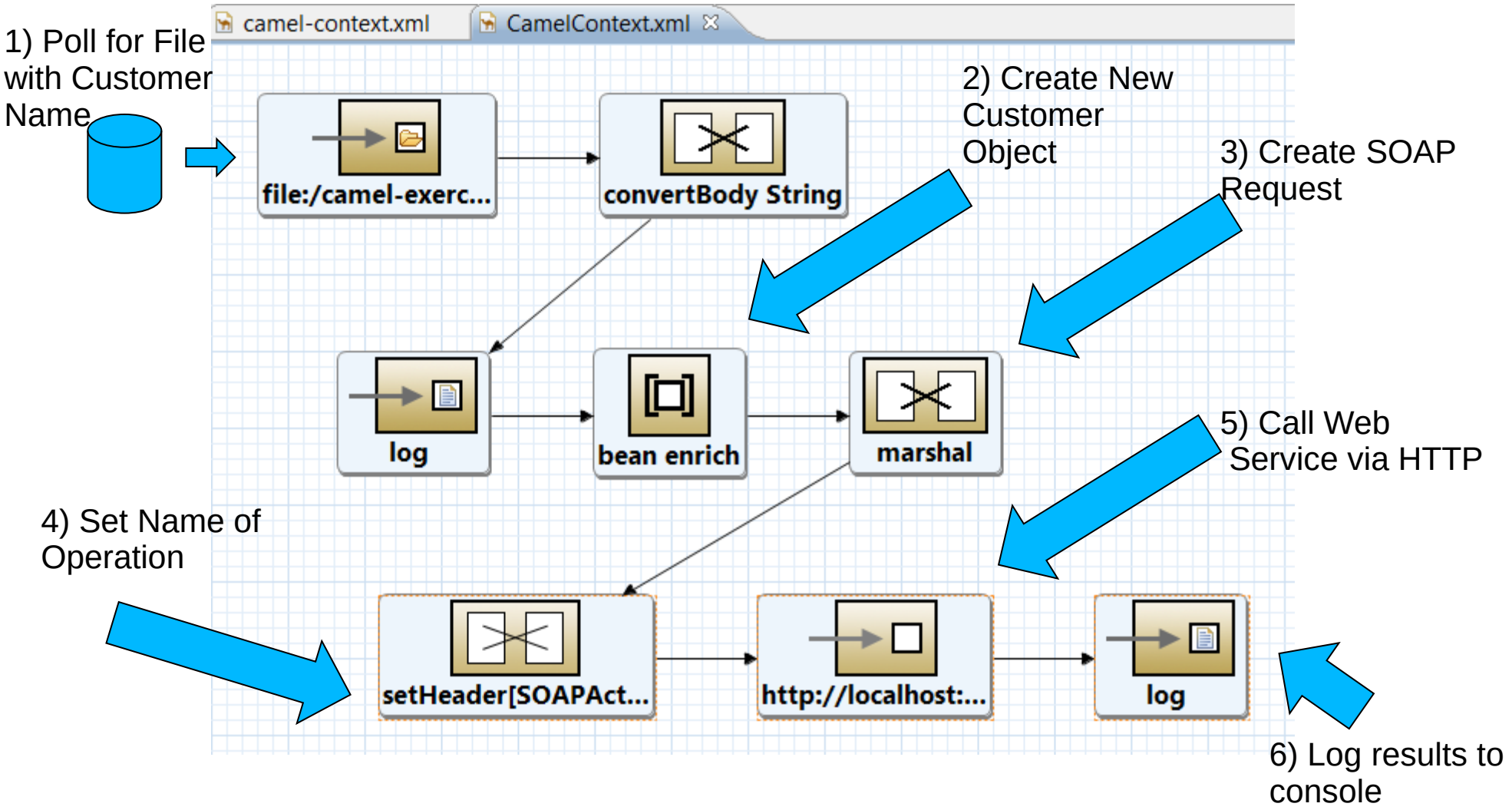
Converts message into Java objects

Based on SOAPACTION header invokes one

one of the following Web Service operations: “saveCustomer, getCustomerByName, getAllCustomers”

Returns a SOAP formatted response back to the caller

Route – Camel Web Service Test Client



Web Service Client Camel Route

- Has a file consumer endpoint poll the “/camel/webservices” directory.
- Creates a SOAP request message by

  1) extracting the String contained in the file consumed (customer name)

  2) creating a Java Customer Object of the request using the Enrich custom processor

  3) marshalling into SOAP (Message) DataFormat.
- Invokes WebService request by transmitting the SOAP request message via HTTP. This ultimately calls the actual Web Service which the other Camel route implements
- The WebService sends a response back to the client which is then logged on the console

Now Hands On!!

Read your lab sheet and do the following

- Review the files in the lab
- Build and install the lab
- Start the Camel route for a test client and Camel route Web Service Implementation
- Deposit/copy test data file to trigger the test client
- Observe the behavior via logged messages
- (optionally) Use SOAP UI as an alternate Web Service client for other operations