# Airline-B t Fultement Lambda

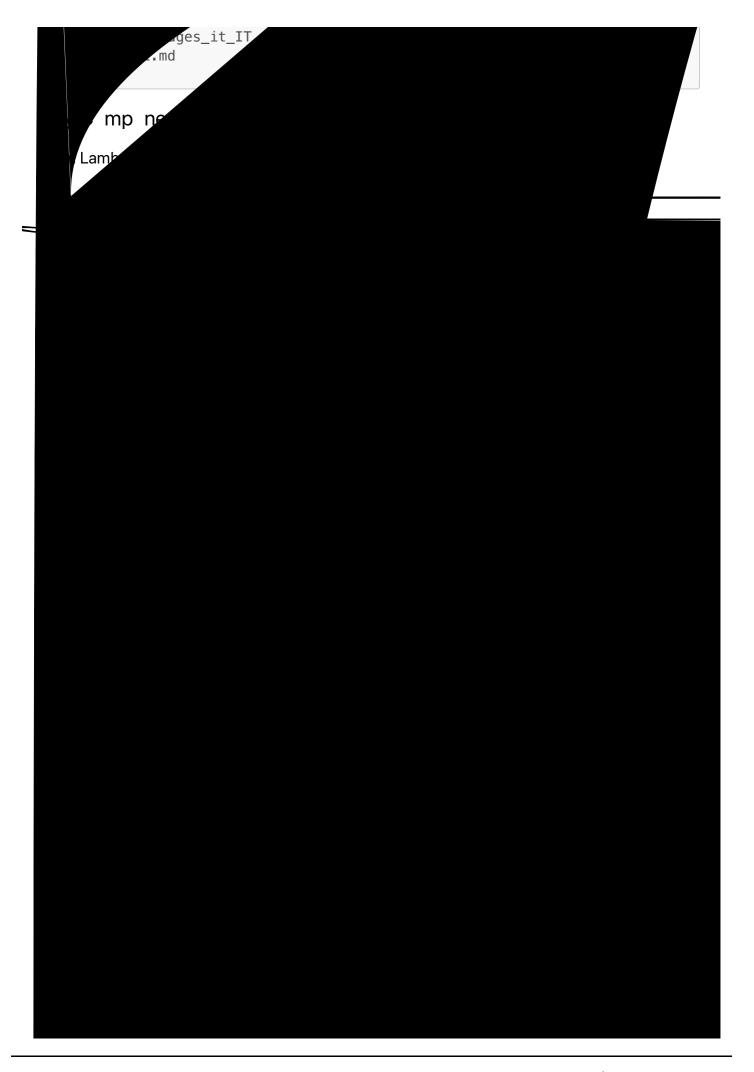
This direct ry c ntains the AWS Lambda fulfillment function for the Airline-Bot, built using the lex\_helper framew rk. The Lambda functi n handles all intent pr cessing, sl t elicitati n, and business I gic f r the c nversati nal Al airline service b t.

## Overview

The fulfillment Lambda serves as the backend f r an Amaz n Lex V2 chatb t that pr vides airline services including:

- Flight b king with authenticati n fl w
- Flight status and delay updates

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```
# Extract the lex-helper package (download from
https://gitlab.aws.dev/lex/lex-helper)
unzip layers/lex-helper-v*.zip -d layers/lex_helper/python
```

#### 2. Local Path Configuration:

The lambda\_function.py aut matically adds the layer t Pyth n path when running I cally (detected by absence f AWS\_EXECUTION\_ENV envir nment variable).

#### 3. T sting:

```
# Run individual intent handlers for testing
python -m intents.book_flight

# Test the main lambda handler
python lambda_function.py
```

#### **Devel pment Guidelines**

- F II w the established pattern f r new intent handlers
- Use the lex\_helper framew rk functions for consistent behavior
- Add c mprehensive I gging f r debugging
- Handle b th dial g and fulfillment inv cati ns urces
- St re relevant data in sessi n attributes f r multi-turn c nversati ns

#### Message C nfigurati n

The b t supp rts internati nalizati n thr ugh YAML message files I cated in the messages/ direct ry. The c nfigurati n system:

- 1. Automatically d t cts nvironm nt: W rks in b th Lambda and I cal devel pment
- 2. L v rag s M ssag Manag r's s arch paths: Uses the built-in search capabilities f the lex\_helper framew rk
- 3. **Supports nvironm nt variabl ov rrid**: Set MESSAGES\_DIR t cust mize the messages direct ry l cati n
- 4. Handl s multipl local s: Currently supp rts en\_US and it\_IT

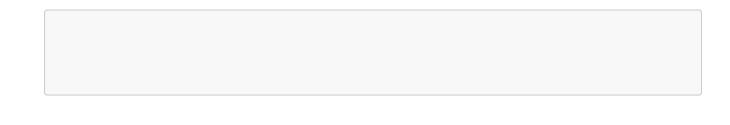
#### T add a new I cale:

- 1. Create a new file in the messages / direct ry named messages LOCALE\_CODE.yaml
- 2. Add the I cale c det the supp rted I cales list in lambda\_function.py
- 3. Translate all message keys fr m an existing I cale file

The message c nfigurati n is handled by the utils/config.py m dule, which:

- In Lambda: Uses the default paths (messages are depl yed t /var/task)
- In I cal devel pment: Adds the pr ject direct ry t the Pyth n path

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• Cl udWatch L gs permissi ns f r l gging

#### Lex Integrati n

- C nfigure the Lex b tt use this Lambda as the fulfillment function
- Enable c de h ks f r intents that require dial g management
- Set appr priate time ut values (rec mmended: 30 sec nds)

# **Testing**

#### **Test Events**

Use the pr vided test events in the Cl udF rmati n direct ry:

```
aws lambda invoke --function-name AirlineBotFulfillment \
    --payload file://test-event.json output.json
```

#### Integrati n Testing

#### Test thr ugh:

- Amaz n Lex c ns le test interface
- AWS CLI recognize-text c mmands
- Integrated messaging platf rms (if c nfigured)

# Pr ducti n C nsiderati ns

#### Perf rmance

- Lambda c ld start ptimizati n thr ugh pr visi ned c ncurrency if needed
- · Efficient sessi n attribute management
- Pr per err r handling t prevent time uts

#### Security

- Input validati n and sanitizati n
- Secure handling fauthenticati n data
- Pr per I gging with ut exp sing sensitive inf rmati n

# M nit ring

- Cl udWatch metrics and alarms
- Cust m metrics f r business I gic
- Structured I gging f r debugging

### Integrati n P ints

The current implementation uses mock data. For production:

Replace authentication i							