Airline-B t Ful[illegible]ment Lambda

This direct ry c ntains the AWS Lambda fulfillment functi n f r the Airline-B t, built using the lex_helper framew rk. The Lambda functi n handles all intent pr cessing, sl t elicitati n, and business l gic f r the c nversati nal AI 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

```
  — messages_it_IT
  README.md
```

[redacted]

C mp ne

n Lamb

```
# 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 l 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 ll w the established pattern f r new intent handlers
- Use the lex_helper framew rk functi ns f r c nsistent behavi r
- Add c mprehensive l gging f r debugging
- Handle b th dial g and fulfillment inv cati n s 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 l 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 l 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 l cale:

1. Create a new file in the `messages/` direct ry named `messages_LOCALE_CODE.yaml`
2. Add the l cale c de t the supp rted l cales list in `lambda_function.py`
3. Translate all message keys fr m an existing l 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 l cal devel pment: Adds the pr ject direct ry t the Pyth n path

- Cl udWatch L gs permissi ns f r l gging

Lex Integrati n

- C nfigure the Lex b t t use this Lambda as the fulfillment functi n
- 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   f authenticati n data
- Pr per l gging with ut exp sing sensitive inf rmati n

M nit ring

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

Integrati n P ints

The current implementati n uses m ck data. F r pr ducti n:

- Replace authenticati n l