

# FlightABSA

## Aspect Based Sentiment Analysis (ABSA)

### Airline Reviews Annotation Guidelines

## 1. Introduction

The goal of this annotation task is to identify opinions expressed within airline reviews towards specific entities and their attributes. An entity (that is evaluated) can be the airline as a whole (e.g. Lufthansa, Swiss), it's boarding experience, food or service.

In particular, given an airline review, the task of the annotator is to identify the following types of information:

- **Aspect Category (AC).** Identify the aspect category towards which an opinion is expressed. The aspect category should be chosen from the inventory of valid aspect categories.
- **Aspect Term (AT):** An aspect term is an explicit reference (mention) to the reviewed aspect category. This reference is uniquely identified by its starting and ending offsets.
- **Sentiment Polarity (SP):** Each identified (Aspect category, Aspect term) pair of a sentence has to be assigned a polarity, from a set  $P = \{\text{positive, negative, neutral}\}$ . The neutral label applies to mildly positive or negative sentiment, thus it does not indicate objectivity. For example, sentence d has not been assigned any polarity label, since it conveys only objective information
  - The entertainment in the business class was fantastic! {positive}*
  - The entertainment in the business class was ok! {neutral}*
  - The food in the business class was served right after take off! {}*
- **Opinion Term (OT):** Specific word or phrase in a sentence that expresses opinion, judgment or evaluation. It is often an adjective or adverb that describes the quality or characteristic of an aspect.
  - The entertainment in the business class was fantastic! {"fantastic"}*
  - The entertainment in the business class was ok! {"ok"}*
  - The food in the business class was served right after take off! {}*
  - She was flying to come to her best friends wedding. {}*

The {AC, AT, SP, OT} annotations should be assigned at the sentence level, taking into account the context of the whole review. Only Aspects towards which a sentiment is expressed should be annotated.

## 2. Aspect Categories

A total of nine aspect categories should be considered.

- **AIRLINE#GENERAL** for opinions focusing on the airline in general. Below are some examples:
  1. *"I recently flew from Marseille to LOC with a transfer at CDG LOC, and the experience was terrible."* → {**AIRLINE#GENERAL**}
  2. *"I will not be using JET2 again after this, which is unfortunate as it is our 4th experience with you."* → {**AIRLINE#GENERAL**}
  3. *"SAS has exceeded my expectations with their professionalism and efficiency."* → {**AIRLINE#GENERAL**}
- **AIRLINE#PRICE** for opinions focusing on the prices offered by the airline. Some examples are listed below:
  1. *"They are more expensive than companies that don't have delays."* → {**AIRLINE#PRICE**}
  2. *"Huge value for money."* → {**AIRLINE#PRICE**}
  2. *"The airline ticket prices were way too high."* → {**AIRLINE#PRICE**}
- **AIRLINE#SERVICE** for opinions focusing on the airline's service. Some examples are listed below:
  1. *"Staff was rude and dismissive when I asked for assistance."* → {**AIRLINE#SERVICE**}
  2. *"What unfriendly staff at the counter!"* → {**AIRLINE#SERVICE**}
  3. *"Service was just perfect"* → {**AIRLINE#SERVICE**}
  4. *"On board service friendly and efficient and nothing to complain about from Tui."* → {**AIRLINE#SERVICE**}
  5. *"The service was also rude on the flight."* → {**AIRLINE#SERVICE**}
  6. *"Multilingual staff, greatly representing all Nordic countries."* → {**AIRLINE#SERVICE**}
- **AIRPORT-OPERATION#CHECK-IN** for opinions focusing on the check-in experience offered by the airline. Some examples are listed below:
  1. *"The online check-in process was seamless and saved me a lot of time at the airport."* → {**AIRPORT-OPERATION#CHECK-IN**}
  2. *"The check-in lines were ridiculously long, and there were not enough staff members to assist."* → {**AIRPORT-OPERATION#CHECK-IN**}
  3. *"I appreciated the self-service kiosks, but they were confusing to use and kept freezing, which caused a lot of frustration."* → {**AIRPORT-OPERATION#CHECK-IN**}
- **AIRPORT-OPERATION#BAGGAGE** for opinions focusing on the baggage claiming experience offered by the airline. Some examples are listed below:
  1. *"I finally find someone to help, but my luggage who is small size arrived full broken, like they throw it from the flight."* → {**AIRPORT-OPERATION#BAGGAGE**}
  2. *"They damaged my suitcase on the way to Doha to Manchester and would not respond to my claim."* → {**AIRPORT-OPERATION#BAGGAGE**}
  3. *"My luggage was delayed for two days, and when it finally arrived, several items inside were missing."* → {**AIRPORT-OPERATION#BAGGAGE**}
- **AIRPORT-OPERATION#BOARDING** for opinions focusing on opinions regarding the boarding experience offered by the airline:

1. *"The boarding process was chaotic, with no clear announcements, and we ended up waiting in line for over 30 minutes.." → {AIRPORT-OPERATION#BOARDING}*
  2. *"They didn't prioritize families with young children, so we had to wait longer than expected to board." → {AIRPORT-OPERATION#BOARDING}*
  3. *"The airline overbooked the flight, and I was almost denied boarding despite having a confirmed ticket." → {AIRPORT-OPERATION#BOARDING}*
- **PUNCTUALITY#GENERAL** for opinions focusing on the punctuality of an airline's flight. Some examples are listed below:
    1. *"The meal was bland and barely warm, with very limited options for those with dietary restrictions." → {PUNCTUALITY#GENERAL}*
    2. *"3 hours delayed without any warning about it." → {PUNCTUALITY#GENERAL}*
    3. *"Another delay by easyJet, one of the many." → {PUNCTUALITY#GENERAL}*
  - **ONBOARD#SEAT-LEGROOM** for opinions focusing on the seats' legroom in the airline's aircraft. Below are some examples:
    1. *"The legroom was too cramped." → {ONBOARD#SEAT-LEGROOM}*
    2. *"I had plenty of legroom in my seat." → {ONBOARD#SEAT-LEGROOM}*
    3. *"There was barely any space for my legs." → {ONBOARD#SEAT-LEGROOM}*
  - **ONBOARD#SEAT-COMFORT** for opinions focusing on the seating comfort in the airline's aircraft. Below are some examples:
    1. *"The seat was very uncomfortable." → {ONBOARD#SEAT-COMFORT}*
    2. *"I was happy with my seat" → {ONBOARD#SEAT-COMFORT}*
    3. *"The seats were fine." → {ONBOARD#SEAT-COMFORT}*
  - **ONBOARD#ENTERTAINMENT** for opinions focusing on the entertainment offered on the airline's aircraft. Some examples are listed below:
    1. *"The in-flight entertainment system had a wide selection of movies, but unfortunately, the headphones didn't work properly." → {ONBOARD#ENTERTAINMENT}*
    2. *"There were hardly any entertainment options, and the Wi-Fi was extremely slow and unreliable." → {ONBOARD#ENTERTAINMENT}*
    3. *"The games in the entertainment program were a great distraction, especially on the long flight, and helped the time pass more quickly." → {ONBOARD#ENTERTAINMENT}*
  - **ONBOARD#CLEANLINESS** for opinions focusing on the cleanliness offered on an airline's flight. Some examples are listed below:
    1. *"The tray table was sticky, and there was trash left in the seat pocket from the previous flight." → {ONBOARD#CLEANLINESS}*
    1. *"The restrooms were consistently clean throughout the flight, which was a pleasant surprise." → {ONBOARD#CLEANLINESS}*
    1. *"I noticed that the seats and carpets were stained, making the cabin feel quite dirty." → {ONBOARD#CLEANLINESS}*
  - **ONBOARD#PRICE** for opinions, focusing on the items offered on an airline's flight. Some examples are listed below:
    1. *"Food's price is a joke" → {ONBOARD#PRICE}*

2. *"Free Wifi for just 3\$" → {ONBOARD#PRICE}*
3. *"The cola was warm, actually, it was awful." → {ONBOARD#PRICE}*

- **ONBOARD#FOOD** for opinions, focusing on the food offered on an airline's flight. Some examples are listed below:
  1. *"And 37 nok for water; without the option of "tap" water." → {ONBOARD#FOOD}*
  2. *"The quality of food and beer inside the cabin is abysmal" → {ONBOARD#FOOD}*
  3. *"The meal was bland and barely warm, with very limited options for those with dietary restrictions." → {ONBOARD#FOOD}*

### 3. Aspect Terms

An aspect term (AT) is an explicit reference (mention) to an aspect category that is evaluated. This mention can be a named entity, a common noun or a multi-word term. Below are some examples:

1. *"I finally find someone to help, but my luggage who is small size arrived full broken, like they throw it from the flight." → {AIRPORT-OPERATION#BAGGAGE, luggage, negative}*
2. *"The burger was too expensive, in my opinion!" → {ONBOARD#PRICE, burger, negative}*
3. *"Multilingual staff, greatly representing all Nordic countries." → {AIRLINE#SERVICE, staff, negative}*

If an OTE has more than one occurrence in the same sentence, only the first one should be tagged, e.g

1. *"The food was so fantastic that it didn't even matter that the service was incredibly unpleasant... We were simply delighted with the food." → {ONBOARD#FOOD, staff, negative}*
2. *"The entertainment system offered many new movies but the entertainment system was like the only nice thing on the flight" → {ONBOARD#ENTERTAINMENT, entertainment system, positive}, {AIRLINE#GENERAL, NULL, negative}*

When an aspect category is only implicitly referred (e.g. through pronouns) or inferred in a sentence, then the AT slot is assigned the value **NULL** e.g.

1. *"Everything was wonderful!" → {AIRLINE#GENERAL, NULL, positive}*
2. *"It was very delicious!" → {ONBOARD#FOOD, NULL, positive}*
3. *"We were simply not served, and I sat very badly." → {AIRLINE#SERVICE, NULL, negative}, {ONBOARD#SEAT-COMFORT, NULL, negative}*

### 4. Opinion Terms

An opinion term (OT) is a specific word or phrase within a sentence that conveys a subjective evaluation or judgment about an aspect. These terms are often adjectives or adverbs that describe the quality or characteristic of an aspect being discussed. Below are some examples:

1. *"Flight experience is alright." → {AIRLINE#GENERAL, NULL, neutral, "alright"}*
2. *"I recently flew from Marseille to LOC with a transfer at CDG LOC, and the experience was terrible." → {AIRLINE#GENERAL, NULL, negative, "terrible"}*

3. *"I finally find someone to help but my luggage who is small size arrived full broken, like they throw it from the flight."* → {AIRPORT-OPERATION#BAGGAGE, luggage, negative, "arrived full broken"}
4. *"Huge value for money."* → {AIRLINE#PRICE, NULL, positive, "Huge value"}
5. *"My whole experience was amazing staff was"* → {AIRLINE#SERVICE, "staff", positive, "amazing"}