## Data Description

The data you are provided with are tweets scraped directly from the public Twitter API with a query that collected all tweets that mention the twitter handle of the following airlines or are from/to the account ID of that particular airline:

•	KLM	56377143
•	AirFrance	106062176
•	British_Airways	18332190
•	AmericanAir	22536055
•	Lufthansa	124476322
•	AirBerlin	26223583
•	AirBerlin assist	2182373406
•	easyJet	38676903
•	RyanAir	1542862735
•	SingaporeAir	253340062
•	Qantas	218730857
•	EtihadAirways	45621423
•	VirginAtlantic	20626359

The data has been collected between May 22, 2019 and March 30, 2020. Some interruptions due to technical issues may have occurred.

The Twitter API returns plain-text JavaScript Object Notation (JSON) files. These are grouped together into plain-text files of 67Mb each. Each of these files contains between 9000 and 15000 lines of text, where each line is one tweet, for a total of approximately 6.5 million tweets in 35.2Gb.

For a full overview of the output provided by the Twitter API and the exact definition of all the information see:

https://developer.twitter.com/en/docs/tweets/data-dictionary/overview/tweet-object

JSON Example: Tweet Object

{"created\_at":"Wed May 22 12:20:49 +0000 2019","id":1131173065122078720,

"id\_str":"1131173065122078720","text":"So @AmericanAir @EWRairport lied to an old lady causing her to miss her flight #934 to LHR. She arrived at 6:05am f\u2026 https:\/\/t.co\/Q9Ae8JW0tP",

"source":"\u003ca href=\"http:\/\twitter.com\/download\/iphone\" rel=\"nofollow\"\u003eTwitter for iPhone\u003c\/a\u003e","truncated":true,"in\_reply\_to\_status\_id":null,"in\_reply\_to\_status\_id\_str":null, "in\_reply\_to\_user\_id":null,"in\_reply\_to\_user\_id str":null,"in\_reply\_to\_screen\_name":null}

```
_id: ObjectId("5e94446754effd0af8cdcc1a")
 created_at: "Wed May 22 12:20:49 +0000 2019"
 id: 1131173065122078720
 id str: "1131173065122078720"
 text: "So @AmericanAir @EWRairport lied to an old lady causing her to miss he..."
 source: "<a href="http://twitter.com/download/iphone" rel="nofollow">Twitter fo..."
 truncated: true
 in_reply_to_status_id: null
 in_reply_to_status_id_str:null
 in_reply_to_user_id: null
 in_reply_to_user_id_str: null
 in_reply_to_screen_name: null
> user: Object
 geo: null
 coordinates: null
 place: null
 contributors: null
 is quote status: false
> extended_tweet: Object
 quote_count: 0
 reply_count:0
 retweet_count:0
 favorite_count: 0
> entities: Object
 favorited: false
 retweeted: false
 filter_level: "low"
 lang: "en"
 timestamp_ms: "1558527649561"
```

Next to the information about the tweet itself, each line has information about the user sending the tweet, extended metadata on the tweet, and if available the geolocation data. These are larger blocks of information associated with every tweet in so-called child objects. For example, if a user is mentioned in the tweet text this creates additional variables in the extended\_tweet object:

```
v extended_tweet:Object
   full_text: "So @AmericanAir @EWRairport lied to an old lady causing her to miss he..."
  v display_text_range: Array
      0:0
      1:279
  v entities: Object
    > hashtags: Array
     > urls: Array
     v user_mentions: Array
       v 0: Object
           screen_name: "AmericanAir"
           name: "American Airlines"
           id: 22536055
           id_str: "22536055"
          > indices: Array
       v1:Object
           screen_name: "EWRairport"
           name: "Newark Liberty Airport"
           id: 234423098
           id_str: "234423098"
          > indices: Array
     > symbols: Array
```

Every tweet also contains the information about the user profile of the poster:

```
_id: ObjectId("5e94446754effd0af8cdcc1a")
 created_at: "Wed May 22 12:20:49 +0000 2019"
 id: 1131173065122078720
 id_str: "1131173065122078720"
 text: "So @AmericanAir @EWRairport lied to an old lady causing her to miss he..."
 source: "<a href="http://twitter.com/download/iphone" rel="nofollow">Twitter fo..."
 truncated: true
 in_reply_to_status_id: null
 in_reply_to_status_id_str:null
 in_reply_to_user_id: null
 in_reply_to_user_id_str: null
 in_reply_to_screen_name: null
vuser: Object
    id: 2730172562
    id_str: "2730172562"
    name: "Daman"
    screen_name: "DamanMalone"
    location: "A rock in space"
    description: "Business owner, Animal advocate, horror movie fan and collector of jea..."
    translator_type: "none"
    protected: false
    verified: false
    followers count: 163
    friends_count: 746
    listed_count: 6
    favourites_count: 5403
    statuses count: 1256
    created_at: "Wed Aug 13 19:45:35 +0000 2014"
    utc offset: null
    time zone: null
    geo_enabled: true
    lang: null
    contributors_enabled: false
    is translator: false
    profile background color: "000000"
    profile_background_image_url: "http://abs.twimg.com/images/themes/theme1/bg.png"
    profile_background_image_url_https: "https://abs.twimg.com/images/themes/theme1/bg.png"
    profile_background_tile: false
    profile_link_color: "FF691F"
    profile sidebar border color: "000000"
    profile sidebar fill color: "000000"
    profile_text_color: "000000"
    profile_use_background_image: false
    profile_image_url: "http://pbs.twimg.com/profile_images/1082748978763059201/EvXohsLa_norma..."
    profile image url https: "https://pbs.twimg.com/profile images/1082748978763059201/EvXohsLa_norm..."
    profile_banner_url: "https://pbs.twimg.com/profile_banners/2730172562/1542426215"
    default profile: false
    default_profile_image: false
```