



FLIXBUS

Specification

After starting the app, the user is presented with a timetable of one of our stations with departures and arrivals of the buses.

Acceptance Criteria

- The timetable items should at least contain line number & direction, departure (or arrival) time and brief route.
- Timetable items should be grouped into sections by departure (or arrival) date.
- There should be some way to switch between departures and arrivals.

Example of how the screen could look like:

25/04/15	
15:00	Line 054 direction Erfurt to Berlin ZOB → Jena ZOB → Weimar Hbf → Erfurt
15:00	Line 047 direction Warnemünde to Berlin ZOB → Rostock ZOB → Warnemünde Werft → Warnemünde Strand
15:15	Line F24 direction München to Berlin ZOB → München ZOB
15:15	Line F22 direction Hamburg to Berlin ZOB → Hamburg
15:15	Line 042 direction Tübingen to Berlin ZOB → Nürnberg → Stuttgart Zuffenhausen → Reutlingen Hbf → Tübingen
15:30	Line 031 direction Münster to Berlin ZOB → Hannover → Bad Oeynhaus → Bünde → Melle → Osnabrück → Münster

Please write the code you would consider production-ready.

Additional Info

- Swift or Objective-C? You decide.
- iOS 9+ should be supported
- Any third party libraries and dependency managers can be used
- There should be at least two classes covered with unit tests and having 100% branch coverage
- All dates/times should be displayed in timezone of the station
- Source code should be delivered as a zip archive, optionally with a VCS repository inside. Please do not make the source code publicly available (i.e. GitHub public repository etc.).



FLIXBUS

API details

Host: <http://api.mobile.staging.mfb.io>

Station timetable resource path: [/mobile/v1/network/station/{station_id}/timetable](#)

Station id: **1 (Berlin ZOB)** or **10 (Munich ZOB)**

Authentication

To authenticate against our API one has to add a header to the HTTP request.

Header name is **X-API-Authentication** and value is **interview_TOK3n**.

To verify that our API is working properly, use the following command:

```
curl -H "X-API-Authentication: interview_TOK3n"
```

```
http://api.mobile.staging.mfb.io/mobile/v1/network/station/1/timetable
```

If it doesn't work for you, please let us know ASAP.

Response example

You are interested in the **timetable** object and its **arrivals** & **departures** fields. Here you may see a mapping between data you have to display in the app and departure (or arrival) JSON object field names:

- line number: **line_code**
- direction: **direction**
- departure (or arrival) time: **datetime**
- brief route: **through_the_stations**
- route details: **route** array

Please note that all timestamps are accompanied by timezone of the station.

```
{
  "timetable": {
    "arrivals": [{
      "through_the_stations": "Hamelin \u2192 Hanover \u2192 Peine \u2192 Berlin central bus station",
      "datetime": {
        "timestamp": 1461056400,
        "tz": "GMT+02:00"
      },
      "line_direction": "Bus route 131 direction Berlin central bus station",
      "route": [{
        "id": 1244,
        "name": "Hamelin",
        "address": "Bahnhofplatz",
        "full_address": "Bahnhofplatz, 31785 Hameln, Germany",
        "coordinates": {
          "latitude": 52.101429,
          "longitude": 9.373824
        }
      }, {
        "id": 64,
        "name": "Hanover",
        "address": "Rundestra\u00dfe 12",
        "full_address": "Rundestra\u00dfe 12, 30161 Hannover, Germany",
        "coordinates": {
          "latitude": 52.378922,
          "longitude": 9.740987
        }
      }, {
        "id": 5958,
        "name": "Peine",
        "address": "Braunschweiger Stra\u00dfe",
        "full_address": "Braunschweiger Stra\u00dfe, 31224 Peine, Germany",
```



FLIXBUS

```
"coordinates": {
  "latitude": 52.318714,
  "longitude": 10.232146
}, {
  "id": 1,
  "name": "Berlin central bus station",
  "address": "Masurenallee 4-6",
  "full_address": "Masurenallee 4-6, 14057 Berlin ZOB, Germany",
  "coordinates": {
    "latitude": 52.507171,
    "longitude": 13.279399
  }
}],
"line_code": "L131",
"direction": "Berlin central bus station",
"delay_status": "on_time",
"delay": {
  "timestamp": 1461056400,
  "tz": "GMT+02:00"
},
"station_ride_message": "On time."
}],
"departures": [{
  "through_the_stations": "Berlin central bus station \u2192 M\u00f6nchberg \u2192 Himmelkron
\u2192 Munich central bus station \u2192 Friedrichshafen central station \u2192 Meersburg
\u2192 Constance Allmannsdorf \u2192 Constance D\u00f6beleplatz \u2192 Zurich",
  "datetime": {
    "timestamp": 1461056400,
    "tz": "GMT+02:00"
  },
  "line_direction": "Bus route 006 direction Z\u00f6rich",
  "route": [{
    "id": 1,
    "name": "Berlin central bus station",
    "address": "Masurenallee 4-6",
    "full_address": "Masurenallee 4-6, 14057 Berlin ZOB, Germany",
    "coordinates": {
      "latitude": 52.507171,
      "longitude": 13.279399
    }
  }, {
    "id": 43,
    "name": "M\u00f6nchberg",
    "address": "August-Horch-Stra\u00dfe 12",
    "full_address": "August-Horch-Stra\u00dfe 12, 95213 M\u00f6nchberg, Germany",
    "coordinates": {
      "latitude": 50.20334,
      "longitude": 11.777464
    }
  }, {
    "id": 1714,
    "name": "Himmelkron",
    "address": "Hofer Stra\u00dfe 2",
    "full_address": "Hofer Stra\u00dfe 2, 95502 Himmelkron, Germany",
    "coordinates": {
      "latitude": 50.05418,
      "longitude": 11.62229
    }
  }, {
    "id": 10,
    "name": "Munich central bus station",
    "address": "Arnulfstra\u00dfe 21",
    "full_address": "Arnulfstra\u00dfe 21, 80335 M\u00f6nchen, Germany",
    "coordinates": {
      "latitude": 48.14248,
      "longitude": 11.55001
    }
  }, {
    "id": 9,
    "name": "Friedrichshafen central station",
    "address": "Bahnhofplatz",
```



FLIXBUS

```
{
  "full_address": "Bahnhofplatz, 88045 Friedrichshafen, Germany",
  "coordinates": {
    "latitude": 47.652758,
    "longitude": 9.473237
  }
}, {
  "id": 5,
  "name": "Meersburg",
  "address": "Stettener Stra\u00dfe",
  "full_address": "Stettener Stra\u00dfe, 88709 Meersburg, Germany",
  "coordinates": {
    "latitude": 47.695249,
    "longitude": 9.271471
  }
}, {
  "id": 4,
  "name": "Constance Allmannsdorf",
  "address": "Mainaustra\u00dfe 154",
  "full_address": "Mainaustra\u00dfe 154, 78464 Konstanz, Germany",
  "coordinates": {
    "latitude": 47.682148,
    "longitude": 9.202582
  }
}, {
  "id": 3,
  "name": "Constance D\u00f6beleplatz",
  "address": "D\u00f6beleplatz",
  "full_address": "D\u00f6beleplatz, 78462 Konstanz, Germany",
  "coordinates": {
    "latitude": 47.658161,
    "longitude": 9.169118
  }
}, {
  "id": 2,
  "name": "Zurich",
  "address": "Limmattstrasse 5",
  "full_address": "Limmattstrasse 5, 8005 Z\u00fcrich, Switzerland",
  "coordinates": {
    "latitude": 47.380855,
    "longitude": 8.537436
  }
}],
"line_code": "L006",
"direction": "Z\u00fcrich"
}],
"message": ""
}
```