

gbfs: R Package

General Bikeshare Feed Specification

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What is gbfs?

What is gbfs?

```
{
  "last_updated": 1525975173,
  "ttl": 180,
  "data": {
    "stations": [
      {
        "station_id": "hub_1512",
        "num_bikes_available": 17,
        "num_bikes_disabled": 0,
        "num_docks_available": 1,
        "is_installed": 1,
        "is_renting": 1,
        "is_returning": 1,
        "last_reported": 1525975173
      },
      {
        "station_id": "hub_1513",
        "num_bikes_available": 8,
        "num_bikes_disabled": 0,
        "num_docks_available": 10,
        "is_installed": 1,
        "is_renting": 1,
        "is_returning": 1,
        "last_reported": 1525975173
      },
      {
        "station_id": "hub_1514",
        "num_bikes_available": 15,
        "num_bikes_disabled": 0,
        "num_docks_available": 3,
        "is_installed": 1,
        "is_renting": 1,
        "is_returning": 1,
        "last_reported": 1525975173
      },
      {
        "station_id": "hub_1515",
        "num_bikes_available": 4,
        "num_bikes_disabled": 0,
        "num_docks_available": 13,
        "is_installed": 1,
        "is_renting": 1,
        "is_returning": 1,
        "last_reported": 1525975173
      },
      {
        "station_id": "hub_1516",
        "num_bikes_available": 8,
        "num_bikes_disabled": 0,
        "num_docks_available": 8,
        "is_installed": 1,
        "is_renting": 1,
        "is_returning": 1,
        "last_reported": 1525975173
      },
      {
        "station_id": "hub_1517",
        "num_bikes_available": 5,
        "num_bikes_disabled": 0,
        "num_docks_available": 9,
        "is_installed": 1,
        "is_renting": 1,
        "is_returning": 1,
        "last_reported": 1525975173
      },
      {
        "station_id": "hub_1518",
        "num_bikes_available": 9,
        "num_bikes_disabled": 0,
        "num_docks_available": 7,
        "is_installed": 1,
        "is_renting": 1,
        "is_returning": 1,
        "last_reported": 1525975173
      },
      {
        "station_id": "hub_1519",
        "num_bikes_available": 11,
        "num_bikes_disabled": 0,
        "num_docks_available": 7,
        "is_installed": 1,
        "is_renting": 1,
        "is_returning": 1,
        "last_reported": 1525975173
      },
      {
        "station_id": "hub_1521",
        "num_bikes_available": 5,
        "num_bikes_disabled": 0,
        "num_docks_available": 13,
        "is_installed": 1,
        "is_renting": 1,
        "is_returning": 1,
        "last_reported": 1525975173
      },
      {
        "station_id": "hub_1522",
        "num_bikes_available": 2,
        "num_bikes_disabled": 0,
        "num_docks_available": 16,
        "is_installed": 1,
        "is_renting": 1,
        "is_returning": 1,
        "last_reported": 1525975173
      },
      {
        "station_id": "hub_1523",
        "num_bikes_available": 11,
        "num_bikes_disabled": 0,
        "num_docks_available": 7,
        "is_installed": 1,
        "is_renting": 1,
        "is_returning": 1,
        "last_reported": 1525975173
      },
      {
        "station_id": "hub_1524",
        "num_bikes_available": 4,
        "num_bikes_disabled": 0,
        "num_docks_available": 8,
        "is_installed": 1,
        "is_renting": 1,
        "is_returning": 1,
        "last_reported": 1525975173
      },
      {
        "station_id": "hub_1527",
        "num_bikes_available": 0,
        "num_bikes_disabled": 0,
        "num_docks_available": 10,
        "is_installed": 1,
        "is_renting": 1,
        "is_returning": 1,
        "last_reported": 1525975173
      },
      {
        "station_id": "hub_1528",
        "num_bikes_available": 6,
        "num_bikes_disabled": 0,
        "num_docks_available": 12,
        "is_installed": 1,
        "is_renting": 1,
        "is_returning": 1,
        "last_reported": 1525975173
      },
      {
        "station_id": "hub_1529",
        "num_bikes_available": 0,
        "num_bikes_disabled": 0,
        "num_docks_available": 18,
        "is_installed": 1,
        "is_renting": 1,
        "is_returning": 1,
        "last_reported": 1525975173
      },
      {
        "station_id": "hub_1535",
        "num_bikes_available": 7,
        "num_bikes_disabled": 0,
        "num_docks_available": 11,
        "is_installed": 1,
        "is_renting": 1,
        "is_returning": 1,
        "last_reported": 1525975173
      }
    ]
  }
}
```

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    { "station_id": "hub_1513", "num_bikes_available": 8, "num_bikes_disabled": 0, "num_docks_available": 10, "is_installed": 1, "is_renting": 1, "is_returning": 1, "last_reported": 1525975173 },  
    ]  
  }  
}
```

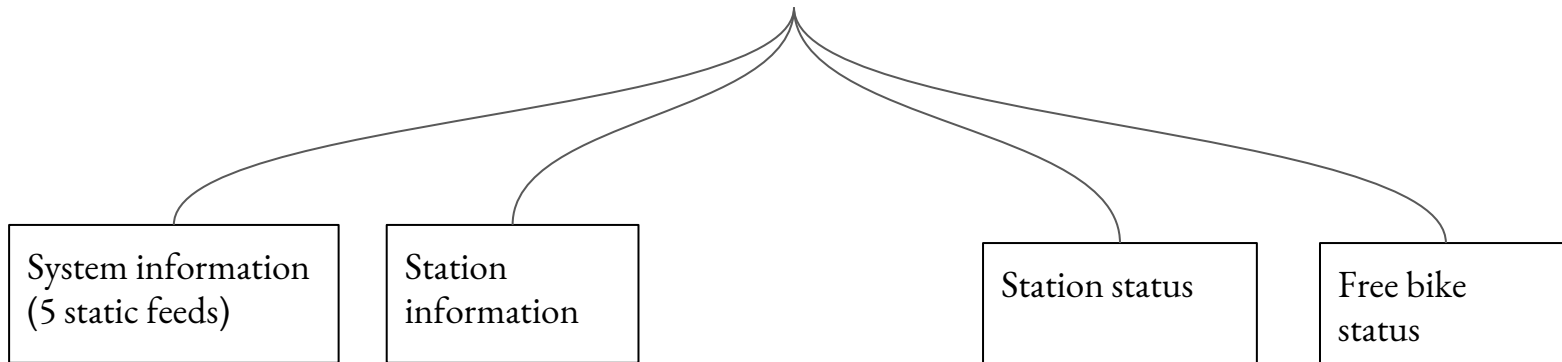


System information
(5 static feeds)

Station
information

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    { "station_id": "hub_1513", "num_bikes_available": 8, "num_bikes_disabled": 0, "num_docks_available": 10, "is_installed": 1, "is_renting": 1, "is_returning": 1, "last_reported": 1525975173 },  
    ...  
  ]  
}
```



```
get_gbfs(city = “portland”, directory = “pdx”)
```

get_gbfs(city = “portland”, directory = “pdx”)

- Makes a folder called “pdx”
- Finds biketown’s URL
- Finds which feeds biketown supplies
- Downloads all feeds
 - Converts .json to .rds
 - Specifies column classes
 - Mutates new date & time columns
 - Saves with informative file names

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hub	# bikes available	time	...
1512	4	8:00 a.m.	...
1513	7	8:00 a.m.	...
...

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hub	# bikes available	time	...
1512	4	8:00 a.m.	...
1513	7	8:00 a.m.	...
...
1512	3	8:05 a.m.	...
1513	4	8:05 a.m.	...
...