

# BI Helper Product Guide

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## 1. BI HELPER OVERVIEW

BI Helper is a cloud-based platform that automates the generation and distribution of PDF reports from Power BI, Tableau and other BI tools. BI Helper is secure, scalable and simple to use, and provides everything you need to deliver your reports to your users!

### Add a Job

Register yourself at <https://app.bihelper.tech>. Log in and create a new report campaign (job). Fill in the job configuration details in the **Schedule**, **PDF** and **Email** tabs in BI Helper. Make sure the report can be accessed with your login.

**Power BI** jobs will be provisioned within 15 minutes of creation, while **Tableau** and **Qlik** jobs require 24 hours to provision. You will receive an email notification once your job is provisioned, after which you can generate and distribute your PDF reports.

Report volumes, data validation and multi-node execution to meet your delivery SLAs are the key factors used by BI Helper to provision your report.

### Login Credentials

#### Power BI

For Power BI reports, please login to your Power BI account with your Microsoft credentials, for BI Helper to access your Power BI reports. **You do NOT need to share your Power BI credentials with BI Helper.**

#### Tableau and Qlik

You will be asked to enter your Tableau or Qlik login credentials in the PDF tab of BI Helper. Please make sure the credentials you supply to BI Helper can **ONLY** access the reports you want to distribute using BI Helper.

**We recommend:** Have a new user account created within your organization for BI Helper, preferably a service account with a non-expiring password. Share the reports with this new account. Make sure this account **DOES NOT** have access to any other resources within your IT network. Enable Multi-Factor Authentication on this account if it is part of the security protocols in your organization.

Please write to us at [contact@bihelper.tech](mailto:contact@bihelper.tech) if you have any questions on the creation and management of user logins in BI Helper.

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## API Integration

API integration with your reporting system ensures that your slicer and contact email information are current every time your report campaign is run. BI Helper uses the APIs of your reporting system to achieve this. This is detailed in the [Webhooks](#) section of this Guide.

## Email Setup

There are two modes to set up email distribution - with or without an SMTP server.

**Without SMTP server:** In the 'From email' box in the Email tab, please provide the email account from which you plan to distribute the PDF reports to your end-users. When you enter the sender email ID in the 'From email' box, BI Helper will send an authorization request to the email account. Click through to authorize BI Helper to send emails from the provided email account. Note that this authorization **DOES NOT** provide BI Helper any access to your SMTP server.

This is a quick and easy way to start with your report distribution campaigns, since it does not require IT or InfoSec approvals for SMTP access. The emails sent using this method have a high trust factor because they originate from the Amazon Web Services (AWS) servers that host BI Helper. These emails do not need to be whitelisted and are not classified as spam by mail servers, ensuring that all your reports are delivered to the intended recipients.

Emails sent in this mode have an additional text in their From header: **abc@xyz.com via amazonses.com**, highlighted in the image below. Some email clients like Gmail show this additional text to the recipient, but others like Outlook do not display it.

**With SMTP server:** You will need to provide BI Helper with access to your SMTP server, and thereafter to create an email account from which BI Helper will send emails. In this case, the 'From email' box will not contain the text '**via amazonses.com**'.

Note: SMTP access for BI Helper will require approvals from your IT and InfoSec teams, and their active participation to implement and manage. Any changes to your login credentials or information security policies will cause the report deliveries from BI Helper to fail until the changes are incorporated in the Email tab. Also, if your SMTP server is down for any reason, your mail campaign will not run.

**We recommend:** Start your report distribution in the 'Without SMTP server' mode. You can continue to run in this mode indefinitely for any reporting volume. After your reporting process stabilizes, if you have compelling reasons to send your reports from your SMTP server, please write to us at [contact@bihelper.tech](mailto:contact@bihelper.tech).

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## Retail Sales Report, Annelie Zubar, May-19 ▷ Inbox x

**BI Helper Demo** [via amazonses.com](https://via.amazonses.com)

to ishan, me ▾

Hi,

Welcome to your sales report! This report is organized by District Manager and Reporting Period.

This mail supports full HTML including images and logos, **bold type**, italics and **color**.

For more information, mail us at [contact@bihelper.tech](mailto:contact@bihelper.tech).

Thank you,

**BI HELPER**



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## 2. JOB CREATION AND EDITING

You can create or edit a report campaign (job) from the three job configuration tabs in <https://app.bihelper.tech> - Schedule, PDF and Email.

### a. Schedule tab

In the Schedule tab, you can define or edit the job name, job frequency and run schedule. You can also activate or deactivate the job using the **Job state** toggle button. Once deactivated, the job will not run until you activate it again.

### b. PDF tab

#### Power BI

In the PDF tab, you will login to your Power BI reports using your Microsoft Power BI account.

Next, you need to define the report or page level slicers and filters on which the PDF reports are to be generated, and enter their values and corresponding recipient email IDs. This can be done in one of two ways, with **Filter Input Mode** set to 'Manual' or 'API'.

#### Applying Filters

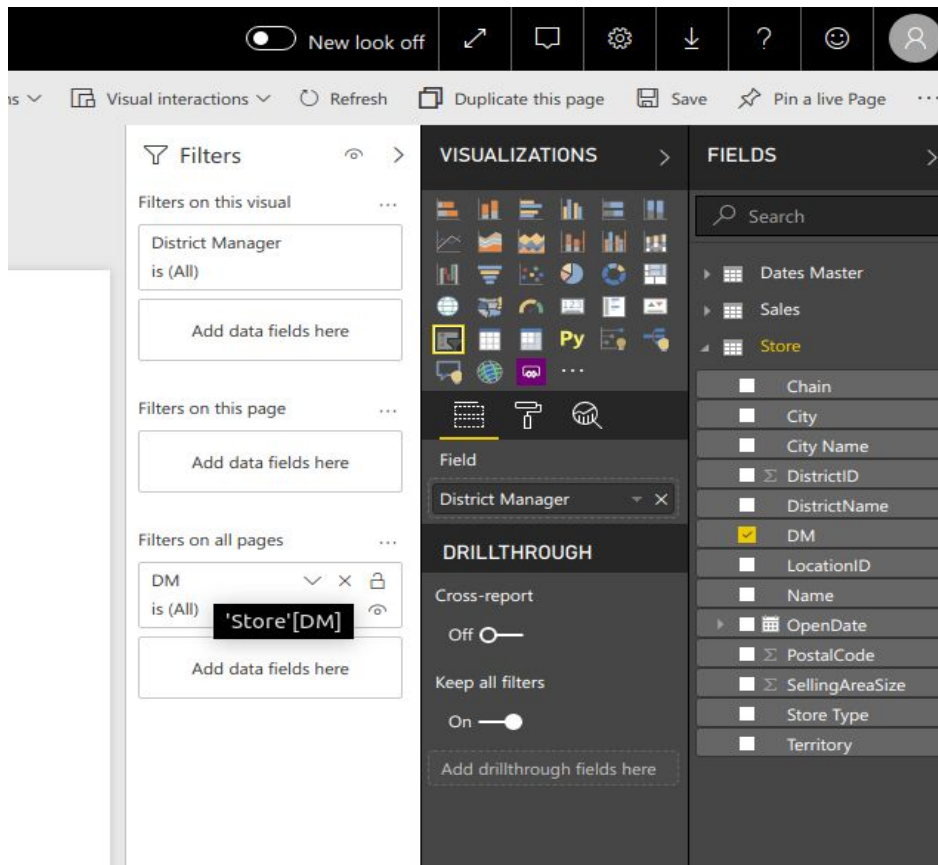
BI Helper supports **report level filters**. In your report, click on the filter pane. Hover over the report level filter, which is in the 'Table Name'[Column Name] format. In the below example, the report level filter is '**Store**'[DM].

In BI Helper, filter names need to be entered in the format: **<Table Name>/<Column Name>**. In the below example, the filter name is to be entered as **Store/DM**.

**Important:** Filter names in BI Helper are case-sensitive and should exactly match those in your report.

**Date Filters:** Date filters are a special case of filters, and BI Helper supports 'Between' date filters. Date filter names must follow the **<Table Name>/<Column Name>** format too.

To specify the value of date filters, use the format StartDate::EndDate. Dates follow the [ISO 8601 format](#), e.g., 2019-08-01T00:00:00 :: 2019-08-30T00:00:00.

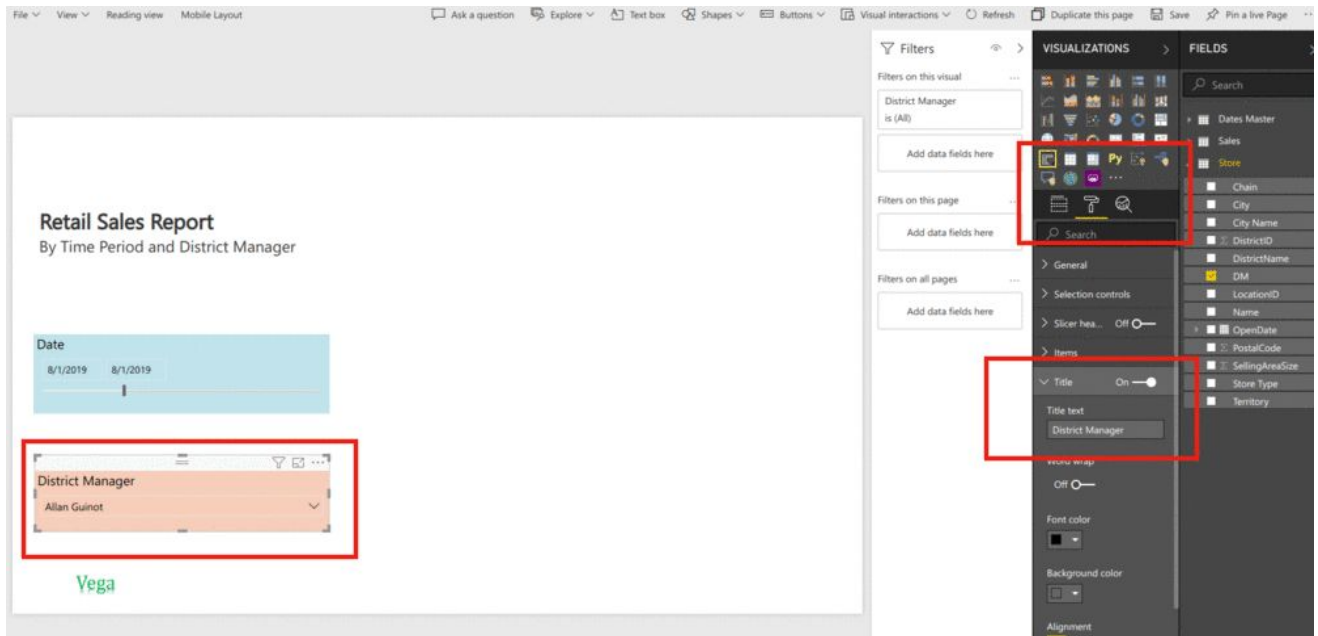


## Applying Slicers

BI Helper supports slicers on the first page of a Power BI report, even where the page is hidden. Slicer names must follow the format: **<Slicer Title><><Table Name>/<Column Name>**. In the below image, District Manager is a slicer, and its title is defined in the slicer formatting options. So, the slicer in BI Helper is to be named **District Manager<>Store/DM**.

**Important:** BI Helper identifies slicers using the 'Title' field defined in the slicer formatting options.

**Date Slicers:** Date slicers are a special case of slicers and BI Helper supports 'Between' date slicers. Date slicer names must follow the same format as above, **<Slicer Title><><Table Name>/<Column Name>**. To specify the value of date slicers, use the format StartDate :: EndDate. Dates follow the [ISO 8601 format](#), e.g., 2019-08-01T00:00:00 :: 2019-08-30T00:00:00.



### Manual Filter Input Mode

You can enter filter and slicer names and values (on which the reports are to be run) and recipient email IDs in the table on the PDF tab, or bulk upload them as a CSV file, using the CSV template provided on this page. If you choose CSV upload, please **DO NOT rearrange, edit or delete the column headers in the CSV template**. If your report uses multiple slicers, separate the slicer names and values using the pipe operator ' | ' in the PDF tab.

Recipient email IDs: If you are sending a report to multiple recipients, please separate the email IDs using a semicolon (;). If you don't want to send a particular PDF to any user, please use a dummy email ID for that report.

Finally, select reporting period from the drop down: Last\_Week, Last\_Month and so on.

Note: BI Helper does not validate the slicer and contact email information provided by you. So please ensure that these inputs exactly match the values in your Power BI report.

**Example:** In the Retail Sales Report (above image), to apply a district manager slicer along with a custom date slicer, the **slicer name** is: Date<>Dates Master/Date | District Manager <> Store/DM and the **slicer value** is 2019-08-01T00:00:00Z::2019-09-01T00:00:00Z | Allan Guinot.

### API Filter Input Mode

Please see [Webhooks](#) for details on configuring APIs.

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## Tableau and Qlik

In the PDF tab, you first define the name and location of your report on your service (or other browser-based BI tool), and enter your login credentials to Tableau or Qlik enable BI Helper to access your report. Our recommendation for creating credentials is [here](#).

Next, you need to define the report or page level slicers on which the PDF reports are to be generated, and enter their values and corresponding recipient email IDs. This can be done in one of two ways, with **Filter Input Mode** set to 'Manual' or 'API'.

### Manual Filter Input Mode

You can enter slicer names and values (on which the reports are to be run) and recipient email IDs in the table on the PDF tab, or bulk upload them as a CSV file, using the CSV template provided on this page. If you choose CSV upload, please **DO NOT rearrange, edit or delete the column headers in the CSV template**. If your report uses multiple slicers, separate the slicer names and values using the pipe operator '|' in the PDF tab.

Recipient email IDs: If you are sending a report to multiple recipients, please separate the email IDs using a semicolon (;). If you don't want to send a given PDF to any user, please add a dummy email ID to that report.

Finally, elect reporting period from the drop down: Last\_Week, Last\_Month and so on.

Note: BI Helper does not validate the slicer and contact email information provided by you. So please ensure that these inputs exactly match the values in your Power BI report.

### API Filter Input Mode

Please see [Webhooks](#) for details on configuring APIs.

#### c. Email tab

**Sender email ID:** BI Helper uses the account specified in 'From email' to send the emails. To allow BI Helper to send the emails, you have to authorize BI Helper to use the account, as described in the [Email Setup](#) section in this document.

**Change of sender email ID:** If you wish to change your sender email ID, please write to us at [contact@bihelper.tech](mailto:contact@bihelper.tech) with the new email ID. We will send you a fresh authorization request via AWS for your new mail account. Once you authorize it, we will activate it and replace your old sender email ID.



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**Disabling emails:** If you want to generate PDF reports but NOT send them, simply turn OFF the 'Send emails' button in the Email tab (see below).

**Send emails** 



**From email** 

BI Helper Demo <demo@bihelper.tech>

**Note:** The **Retail Sales Report** demo on the User Jobs page provides all the details on how to create and run a job.

### 3. JOB STATUS MONITORING AND AUDIT

#### Job Status

Jobs can be scheduled to run at a given date and time in the Schedule tab, or they can be run on-demand by clicking the Run Now button in the **User Jobs** tab (see arrow in below image).

BI Helper offers you the flexibility to split the report generation and email delivery steps. You can generate PDF reports, store them in a secure folder, review and then send them to your selected recipients at a time of your selection.

#### BI HELPER

### User Jobs

**Retail Sales Report**





Job frequency: MONTHLY

Last status: **Success**

Last run: Sep 23rd, 5:14 PM

Next run: Oct 8th, 4:46 PM

Duration: 00 hrs, 14 minutes

**Retail Report**





Job frequency: MONTHLY


Last status: **Provisioning**

Last run: --

Next run: Mar 29th, 10:00 AM

Duration: 00 hrs, 00 minutes



Job completion status can be checked in the **Job Execution History** tab which is opened by clicking on the Timer icon for the selected job.

### Job Execution History

PDF Status

Sep 23rd, 5:14 PM **Generated: 3** **Failed: 0** **In Queue: 0** **PDF: Success** **Email: Success**

File Name	File Status	To	CC	BCC	Send Emails	Email Status
Retail Sales Report 2019-08, Annelie Zubar.pdf	●	ishan@bihelper.tech	kiran@bihelper.tech		✉	●
Retail Sales Report 2019-08, Andrew Ma.pdf	●	ishan@bihelper.tech			✉	●
Retail Sales Report 2019-08, Allan Guinot.pdf	●	ishan@bihelper.tech,kiran@bi			✉	●

Previous Page 1 of 1 5 rows Next

Sep 23rd, 4:50 PM **Generated: 3** **Failed: 0** **In Queue: 0** **PDF: Success** **Email: Success**

Sep 8th, 3:53 PM **Generated: 2** **Failed: 1** **In Queue: 0** **PDF: Success** **Email: Success**

Sep 8th, 3:52 PM **Generated: 0** **Failed: 3** **In Queue: 0** **PDF: Success** **Email: Success**

Sep 8th, 3:48 PM **Generated: 3** **Failed: 0** **In Queue: 0** **PDF: Success** **Email: Success**

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This page contains details of PDF generation and emails sent for the last five report campaign executions for the selected job. This is a detailed job log, which provides details of success / failure at the file level, i.e., for every PDF and email in the job.

The following operations can be performed on this page (last five job executions)::

1. **Edit:** Editing the configuration will allow you to edit the emails and enable / disable the 'Send email' flag.
2. **Send:** You can control the emails to be sent at the level of each PDF, or add / edit email recipients. Note that the contacts are ',' separated.

## Job Failure

When a job fails, BI Helper attempts three retries before sending the error report. Job failures are caused by:

1. **Wrong Configuration:** If the credentials are changed / wrong or the report is renamed or the workspace is changed, the job will fail.
2. **BI tool not reachable / taking too much time to respond:** This is typically a transient issue with the cloud deployment of the BI tool (Power BI, Tableau or other).
3. **Partial completion:** Some PDF files are generated and then the process fails. In such a scenario, you can see which files got generated and which ones were still in the queue.

To fix this, we recommend that you:

- a. Make a note of the files generated and the ones still in the queue.
- b. Go to the User Jobs page in [app.bihelper.tech](http://app.bihelper.tech) and click on the Pen icon to edit your job.
- c. Go to the PDF section of "Edit Job". For all the files that have generated, mark their "Active" status to "False". With this, the input for the next run disables the PDFs generated in the prior run, and only generates the pending (queued) ones.
- d. Save you configuration and click "Run now".

Finally, go back to the job execution history tab and trigger the emails from there.

**Note: If your job fails frequently, please report it to [contact@bihelper.tech](mailto:contact@bihelper.tech) immediately.**

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## 4. REPORT ACCESS AND SECURITY

### Cloud Storage

By default, all the generated PDFs are stored in AWS cloud for a period of six months. Once onboarded, you will be given access to the cloud storage and you can access all your generated files. You can manage your cloud location and copy or delete files from there.

### FTP Access

You can access your PDF files using FTP too. You can manage the FTP location just like the cloud location.

### Credentials Security

All the credentials that are provided by the user are encrypted and stored in our systems. At no stage can any individual access the clear text passwords.

### File Security

When a new client is onboarded, a new location is created on the AWS cloud where the files of the users are stored. At no stage are the files of one client visible to any other client. Further, the files are encrypted and stored.

Users have access to their folders to manage their own files. They can move or delete the files from the AWS cloud at any time after the campaign execution has completed.

### More Information on Security

Many other industry standard security features are built into BI Helper. Please write to [kiran@bihelper.tech](mailto:kiran@bihelper.tech) or [ishan@bihelper.tech](mailto:ishan@bihelper.tech) for more information.

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## 5. WEBHOOKS (API Integration)

### What are Webhooks?

Webhooks are a mechanism for two machines to communicate with each other.

Webhooks operate on the concept of event reaction (don't call me, I'll call you if I need something).

For bursting of reports, the slicers and filters on which your report is based are to be selected, and the right contact email IDs mapped to the slicer and filter values. This ensures that each PDF generated has only the information applicable to a given slicer and filter value combination, and that it is emailed only to the desired recipients.

When API Integration between BI Helper and your reporting system is enabled, BI Helper calls your system's API to pull the current slicer and filter information when the job runs.

### API Signature

Your API Endpoint should return the data in the below format. Please note:

1. All the fields given below are mandatory.
2. If statusCode is anything other than 200, the API response is considered a failure.
3. Make sure the filter\_names are exactly as defined in your BI Report.
4. DO NOT change the sequence of the elements in filter array. If you want to change the sequence of the array, please email [contact@bihelper.tech](mailto:contact@bihelper.tech) or [ishan@bihelper.tech](mailto:ishan@bihelper.tech).
5. Authorization: See next topic.

```
{
  "statusCode": 200,
  "body": {
    "files_to_generate": [
      {
        "bcc_email": ["ishan@bihelper.tech", "kiran@bihelper.tech"],
        "cc_email": ["ishan@bihelper.tech"],
        "to_email": ["ishan@vegasolutions.in"],
        "filters": [
          {
            "filter_name": "District Manager",
            "filter_value": "Annelie Zubar"
          }
        ]
      }
    ]
  }
}
```

```
    },
    {
      "filter_name": "Start Date",
      "filter_value": "03/03/2019"
    },
    {
      "filter_name": "End Date",
      "filter_value": "04/04/2019"
    }
  ],
  "file_name": "Annelie Zubar, 2019-04.pdf"
},
{
  "bcc_email": ["ishan@bihelper.tech", "kiran@bihelper.tech"],
  "cc_email": ["ishan@bihelper.tech"],
  "to_email": ["ishan@vegasolutions.in"],
  "filters": [
    {
      "filter_name": "District Manager",
      "filter_value": "Andrew Ma"
    },
    {
      "filter_name": "Start Date",
      "filter_value": "03/03/2019"
    },
    {
      "filter_name": "End Date",
      "filter_value": "04/04/2019"
    }
  ],
  "file_name": "Andrew Ma, 2019-04.pdf"
},
{
  "bcc_email": ["ishan@bihelper.tech", "kiran@bihelper.tech"],
  "cc_email": ["ishan@bihelper.tech"],
  "to_email": ["ishan@vegasolutions.in"],
  "filters": [
    {
      "filter_name": "District Manager",
      "filter_value": "Ishan Rastogi"
    },
    {
      "filter_name": "Start Date",
      "filter_value": "03/03/2019"
    }
  ]
}
```

```

    },
    {
      "filter_name": "End Date",
      "filter_value": "04/04/2019"
    }
  ],
  "file_name": "Ishan Rastogi, 2019-04.pdf"
}
]
}
}

```

## API Field Description

```

{
  "statusCode": <API Response Code. Only codes as 200 are accepted as a valid response> ,
  "body": {
    "files_generated": <List of Objects> [
      {
        "bcc_email": [<Comma separated list of contacts>],
        "cc_email": [[<Comma separated list of contacts>],
        "to_email": [[<Comma separated list of contacts>],
        "filters": <List of filters to be applied> [
          {
            "filter_name": "Name of Filter as it appears in your BI Report",
            "filter_value": "Filter value to be applied to this filter",
          }
        ],
        "file_name": "The name you want to have for the file generated after the
          application of the above set of filters"
      }
    ]
  }
}

```

## API Authorization

On setting up the API Integration, you can view your secret token in the PDF tab in [app.bihelper.tech](http://app.bihelper.tech). When BI Helper calls your API, it will pass this secret token in an http header “**x-bihelper-token**”. This token needs to be captured in your API implementation and will check if the API is being called from the authorized source.

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DO NOT share this token with anyone. If you want to get the token reset, please write to us. GET and POST end-points are supported right now.

**Demo Endpoint:**

**<https://28ldzt956a.execute-api.us-east-1.amazonaws.com/bihelper/filters?user=ishan@bihelper.tech>**

Secret Token: j6lndQDQqjcyE7CTSoITatDeD

Try API Here: <https://reqbin.com/Okmuaffk> OR

```
curl --header "x-bihelper-token:j6lndQDQqjcyE7CTSoITatDeD"
https://28ldzt956a.execute-api.us-east-1.amazonaws.com/bihelper/filters?user=ishan@bihelper.tech
```

### Customization using API

By using APIs, you can customize the following for your job:

1. **File Name** - You can define your own file nomenclature for the PDF reports generated.
2. **Email Subject** - You can define your own subject title.
3. **Filters** - You can provide any date range or any filters using the APIs and BI Helper will pull the correct values for them from your reporting system.
4. **Folder Structure** - If you want to store files in a specific folder format, you can define the folder structure in your file names and BI Helper will automatically create the folders and store your files as defined.

### KEY FEATURES OF BI HELPER

- |  |
|--|
| <ol style="list-style-type: none"><li>1. Centralized distribution of PDF reports as attachments to full HTML emails</li><li>2. PDF report generation and email campaigns independent of each other, to enable report review before dispatch</li><li>3. Scheduled or on-demand PDF and email campaign execution</li><li>4. Detailed campaign monitoring and logging; user access to execution logs</li><li>5. Campaign failure alerts and automatic retries</li><li>6. API integration / manual upload of slicer values, contact email IDs, dynamic report name and email subject</li><li>7. Secure cloud-based storage in AWS US East</li><li>8. Conditional reporting based on business rules</li></ol> |
|--|