

Investigation of Embark Database & FileStorage

There are two possibilities to upload firmware files on Embark.

1. Through Selenium.
2. Through the API method.

Possibilities to upload firmware directly to Embark using Selenium:

1. On Selenium script by using HTML web elements and the “SendKeys” command it can easily upload firmware files on Embark.

Example:

```
1 | WebElement chooseFile = driver.findElement(By.id("custom-input"));
2 | chooseFile.sendKeys("/Users/ankita/Downloads/edureka.png");
```

Possibilities to upload firmware directly to Embark using its API:

Embark has backend and frontend parts.

1. The backend part is using the Django framework and exposing endpoints to upload firmware, to start the analysis. ([Github Link](#)).

```
1 | from django.urls import path
2 |
3 | from uploader import views
4 |
5 | # view routing
6 | urlpatterns = [
7 |
8 |     path('uploader/', views.uploader_home, name='embark-uploader-home'),
9 |     path('uploader/save/', views.save_file, name='embark-uploader-save'),
10 |    path('uploader/delete/', views.delete_fw_file, name='embark-uploader-delete'),
11 |    path('uploader/start/', views.start_analysis, name='embark-uploader-start-analysis'),
12 | ]
```

2. The JavaScript code in the frontend making requests to the backend mentioned above endpoints. ([GitHub link](#))

```
54     $.ajax({
55         type: 'POST',
56         url: '/uploader/save/',
57         data: formData,
58         headers: {
59             'X-CSRFToken': getCookie('csrftoken')
60         },

if(data === "successful upload"){
    location.href = "/uploader/start/";
}
```

The APIs are using CSRF tokens, so we will get this token by authenticating.