IIA Code Setup

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Prerequisite:

Install given sofwares before setting up the IIA.

```
- Python version == 3.9
- Robo3T == 1.4
- Angular CLI 7.0.1 install using this command (npm install -g @angular/cli)
- MongoDB == 3.12.0
- Node 14.22

Default password for IIA to login:
Username: admin
Password: Automation@123

Once IIA is up and Running click on Refresh button to refresh IIA Frontend.
```
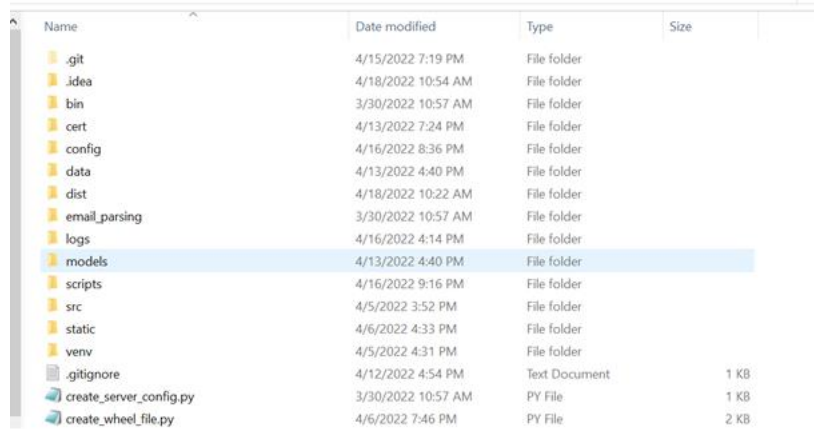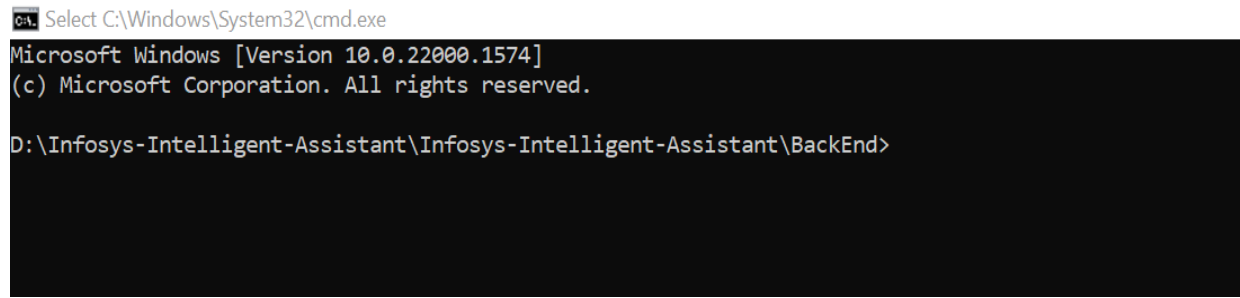
1. IIA Code Setup:

IIA Code:

https://github.com/Infosys/Infosys-Intelligent-Assistant.git
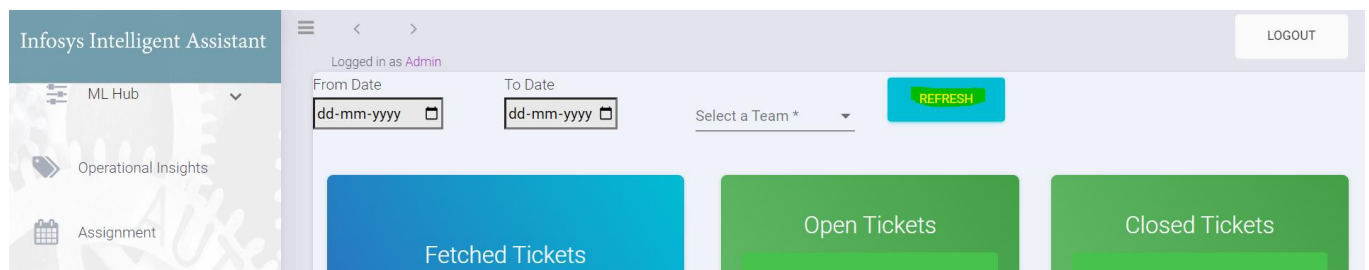
Run IIA:

Navigate to the place where IIA back end code is present

Name	Date modified	Type	Size
.git	4/15/2022 7:19 PM	File folder	
.idea	4/18/2022 10:54 AM	File folder	
bin	3/30/2022 10:57 AM	File folder	
cert	4/13/2022 7:24 PM	File folder	
config	4/16/2022 8:36 PM	File folder	
data	4/13/2022 4:40 PM	File folder	
dist	4/18/2022 10:22 AM	File folder	
email_parsing	3/30/2022 10:57 AM	File folder	
logs	4/16/2022 4:14 PM	File folder	
models	4/13/2022 4:40 PM	File folder	
scripts	4/16/2022 9:16 PM	File folder	
src	4/5/2022 3:52 PM	File folder	
static	4/6/2022 4:33 PM	File folder	
venv	4/5/2022 4:31 PM	File folder	
.gitignore	4/12/2022 4:54 PM	Text Document	1 KB
create_server_config.py	3/30/2022 10:57 AM	PY File	1 KB
create_wheel_file.py	4/6/2022 7:46 PM	PY File	2 KB

Open Command prompt from the navigated location

```
Select C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.22000.1574]
(c) Microsoft Corporation. All rights reserved.

D:\Infosys-Intelligent-Assistant\Infosys-Intelligent-Assistant\BackEnd>
```

- If you are setting things up for the first time then issue

  python -m venv venv

  a folder named venv will be created

- Activate the virtual environment

  Cd venv

  Cd scripts

  Activate

  Cd..

  Cd..

  Pip install -r requirements.txt

  Cd bin & run

Follow the activate virtual environment and run bin going forward.

Build Frontend Code:

Navigate to the place where IIA front end code is present

Name	Date modified	Type	Size
.idea	17-03-2023 16:15	File folder	
BackEnd	17-03-2023 16:16	File folder	
FrontEnd	17-03-2023 16:16	File folder	
build_iia_frontend.bat	14-03-2023 15:08	Windows Batch File	1 KB
LICENSE	14-03-2023 15:08	File	2 KB
README.md	14-03-2023 15:08	Markdown Source File	1 KB

Open command prompt at this location and run build_iia_frontend.bat using the below code.

C:\Windows\System32\cmd.exe

```
D:\Infosys-Intelligent-Assistant\Infosys-Intelligent-Assistant>build_iia_frontend.bat
```

Once successfully completed It will build static file and paste static file in the Backend Folder.

1. Mongodb back up and restore

BackUp:

mongodump – db <db name

C:\Windows\System32\cmd.exe

```
Microsoft Windows [Version 10.0.19042.1826]
(c) Microsoft Corporation. All rights reserved.

D:\XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX\IIA Dataset and Assignment>mongodump --db XXXX
```

Name	Date modified	Type	Size
TblAlgorithm.bson	7/19/2022 1:29 PM	BSON File	2 KB
TblAlgorithm.metadata.json	7/19/2022 1:29 PM	JSON File	1 KB
TblApplication.bson	7/19/2022 1:29 PM	BSON File	3 KB
TblApplication.metadata.json	7/19/2022 1:29 PM	JSON File	1 KB
TblApplicationAnalystMapping.bson	7/19/2022 1:29 PM	BSON File	28 KB
TblApplicationAnalystMapping.metadata.json	7/19/2022 1:29 PM	JSON File	1 KB
TblApprovedTickets.bson	7/19/2022 1:29 PM	BSON File	0 KB
TblApprovedTickets.metadata.json	7/19/2022 1:29 PM	JSON File	1 KB

Restore:

Open command prompt outside dump folder where you kept **mongodump** files

mongorestore --db <databasename> --drop dump/<databasename>

IIA Dataset and Assignment>mongorestore --db XXXX --drop dump/XXXXT

1. IIA Dataset Setup

Create Team in IIA:

Below is the screenshot of homepage of the IIA. Click on the general setting.
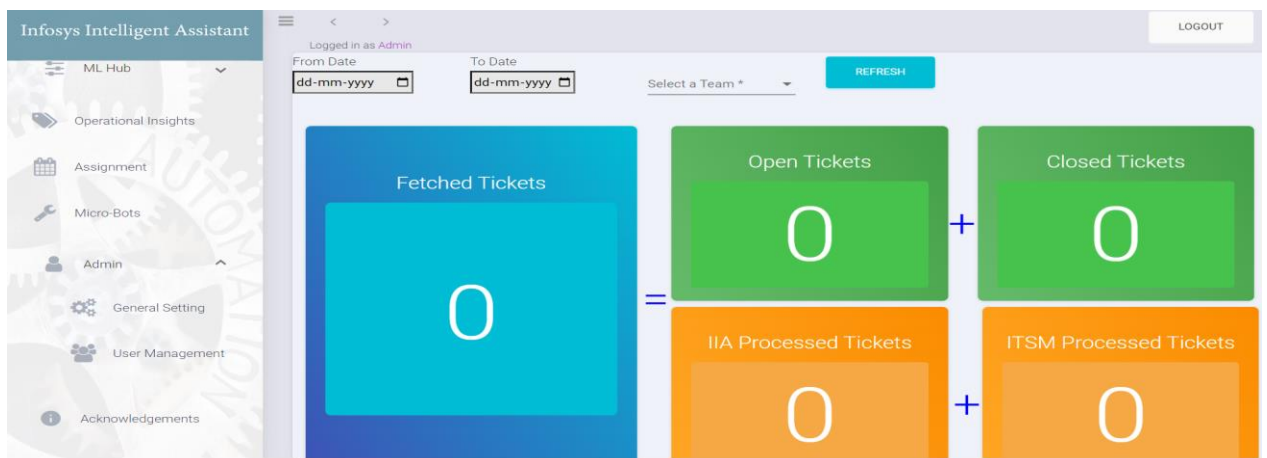
Click on **Team details**.
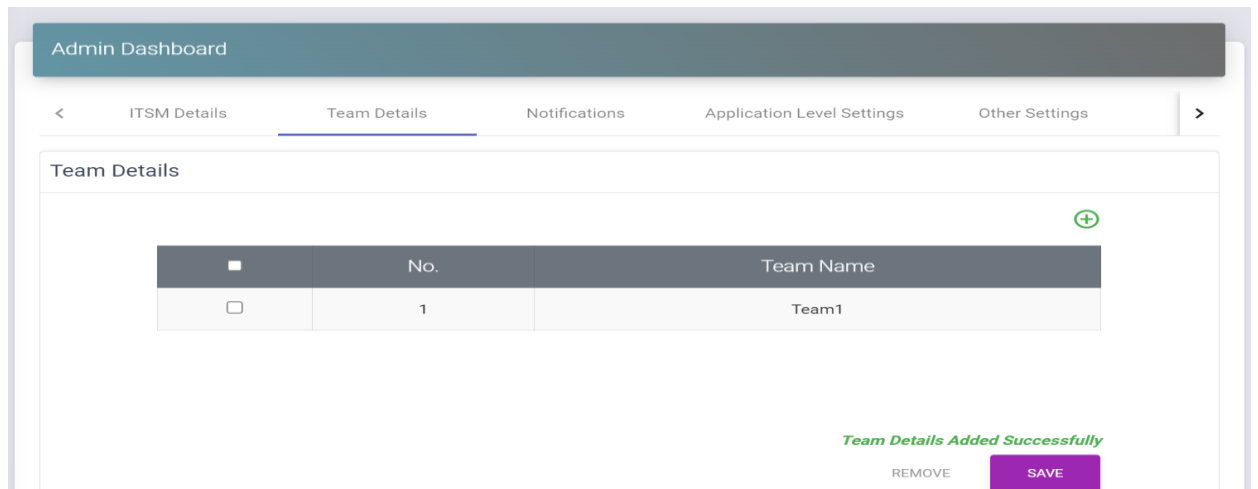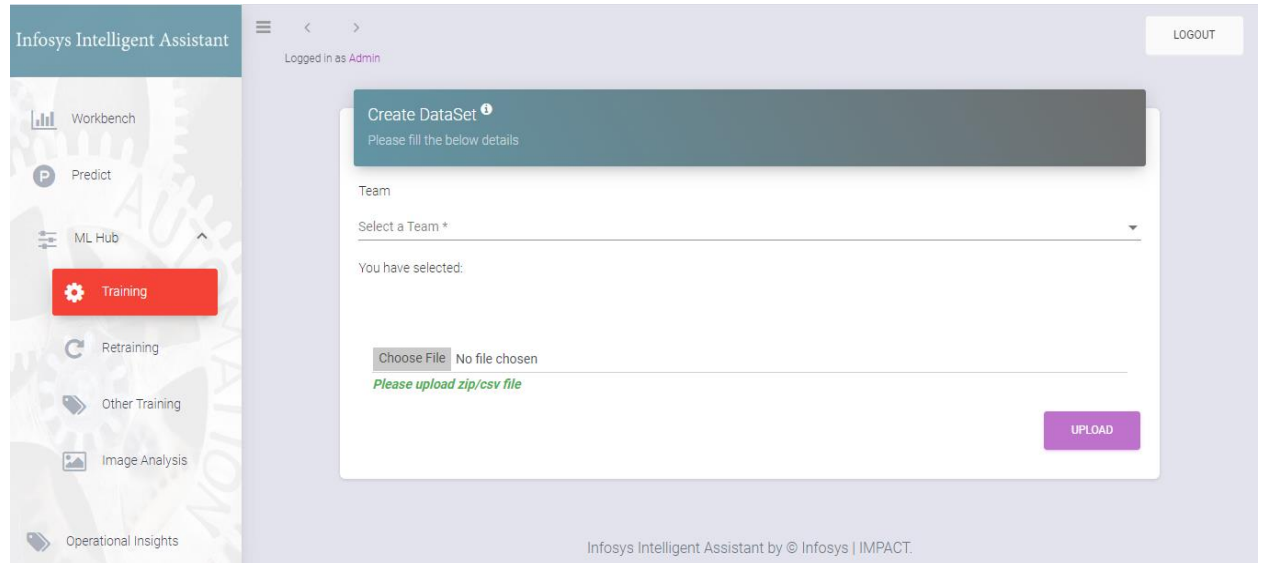
Click on Plus Sign. Enter team name and click on Save Button.
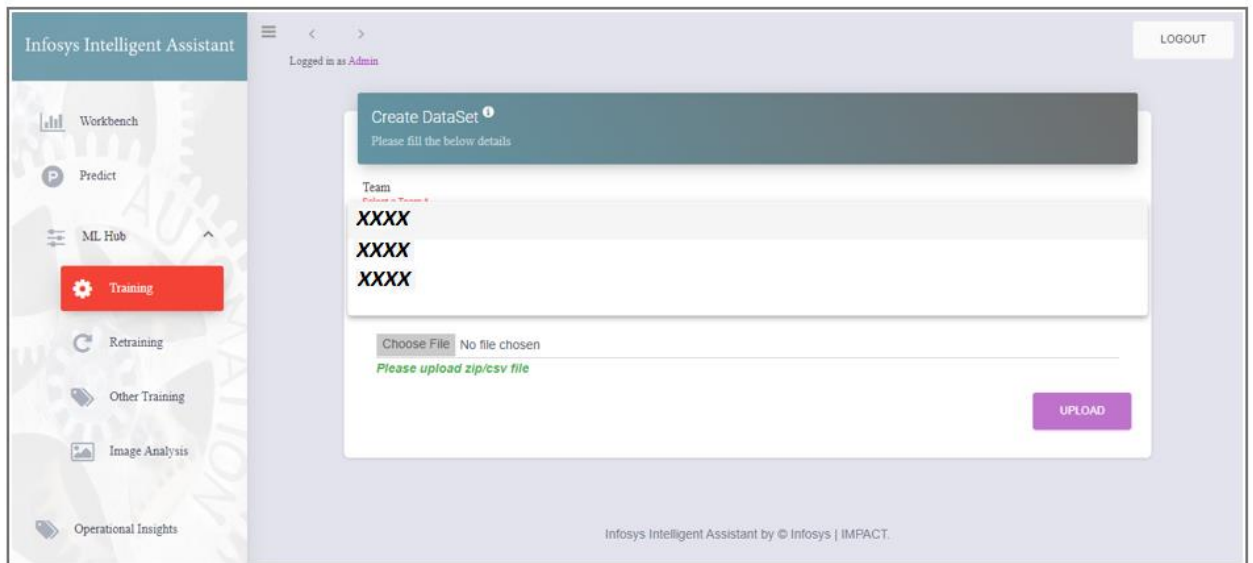

Uploading dataset for training in IIA:

Below is screenshot of Training Module

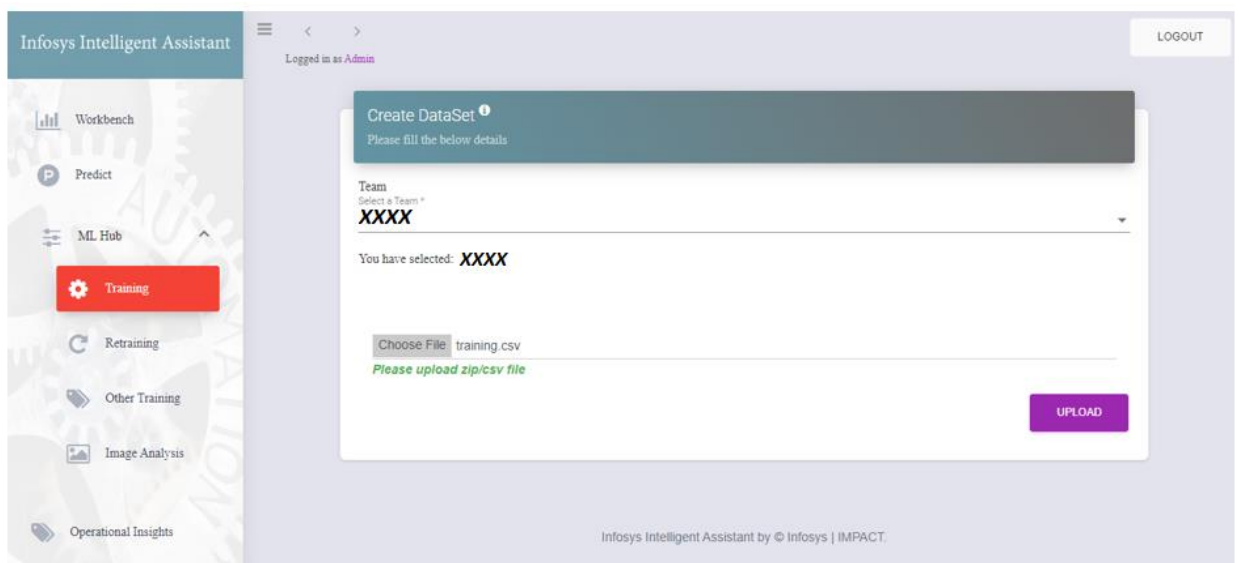

To add records, you will have to choose the team and file(zip/csv) to be uploaded.
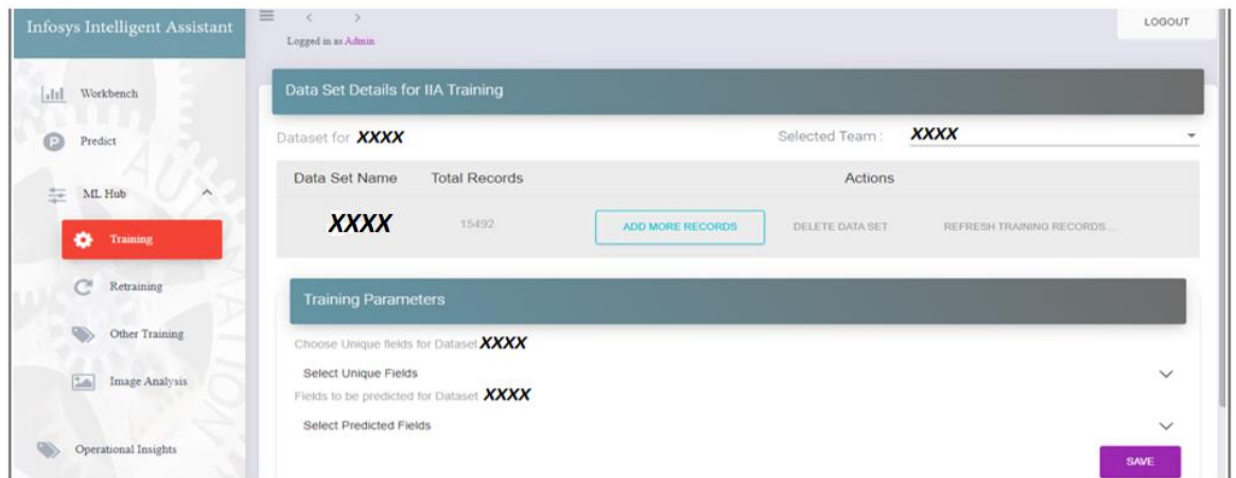
Steps to add Records:

Step 1: Hover over the Select a Team option. Select the team you want to add the training data for, from the drop down.

Step 2: After Selecting the Team, choose the CSV/Zip file which you want to upload.

Step 3: Click on upload to upload the csv to IIA database. The tickets which have been uploaded are not trained yet.

After you upload the records for training, you get an option to add more records or delete the dataset or refresh the training records added

Steps to select the Training Parameters:

Step 1: Click on Select Unique field to select the unique field from the uploaded tickets.
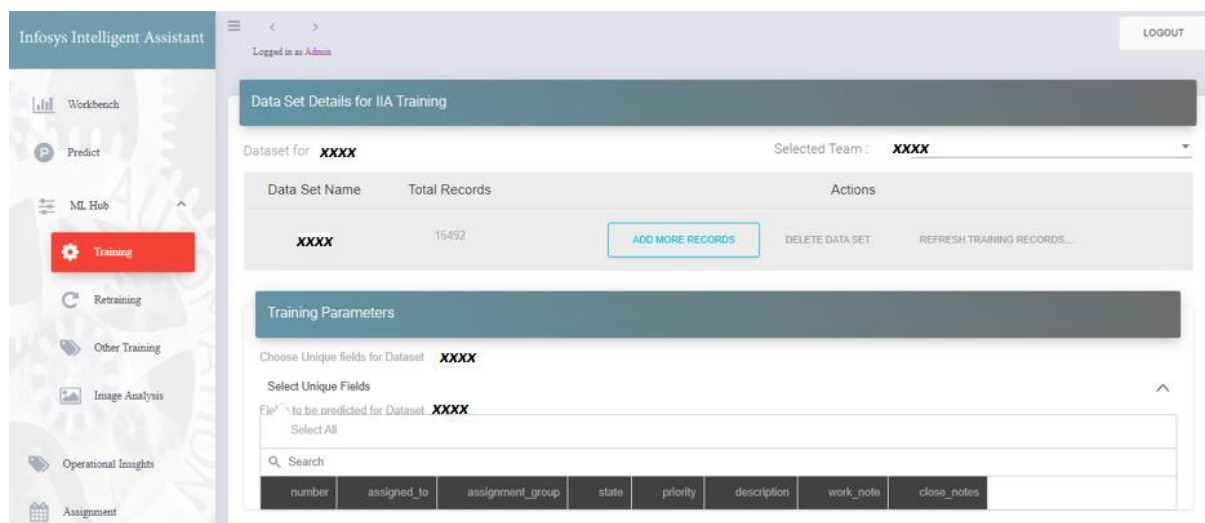
Step 2: Click on Select Predicted Fields to select the various field which you want to predict from IIA.

Step 3: Click on Select Textual Input Fields to choose input field for all the predicted Field.

Step 4: Click on Select Additional Input Fields to choose input field for all the predicted Field. The additional fields are optional.

Step 5: Click on Save to save the parameter choices.

Step 6: Click on train to start the machine training on the selected parameters.

After the machine gets Trained on the chosen training parameter, IIA displays F1-score on the Training data for each Algorithm. By default, the algorithm giving the highest F1-score for that Predicted field is already selected by IIA. However, one can change the algorithm to be used by selecting a different radio button.
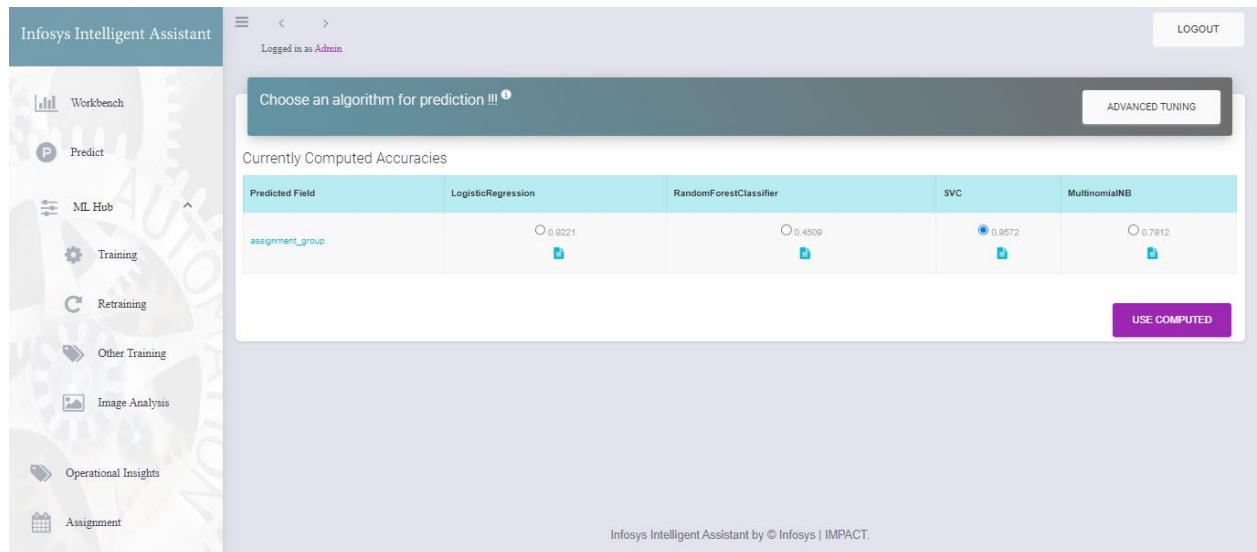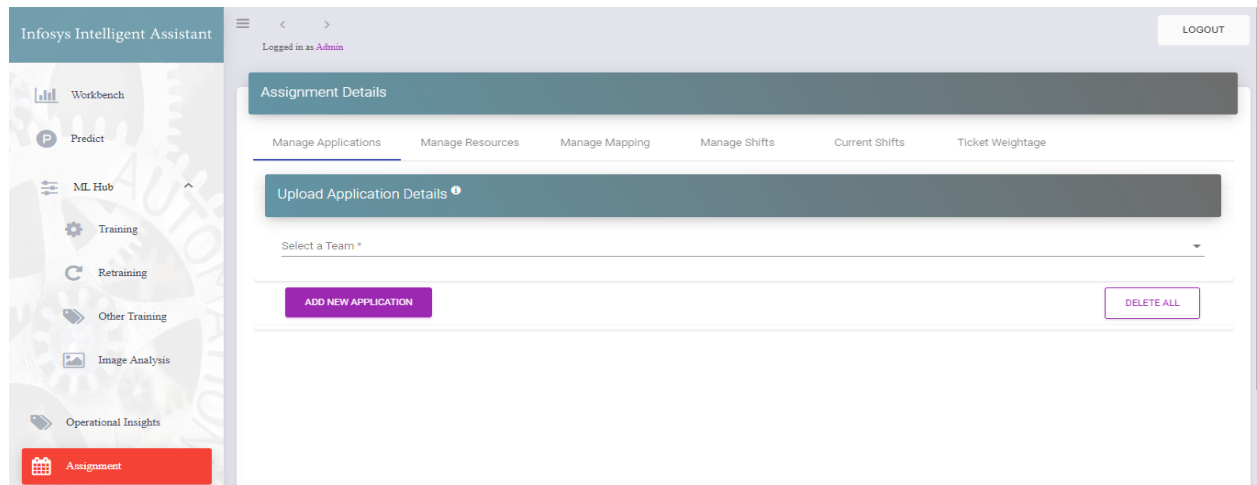
Step 7: After the algorithm to be used is selected the Button of USE COMPUTED must be pressed to save the chosen algorithms for future prediction use.
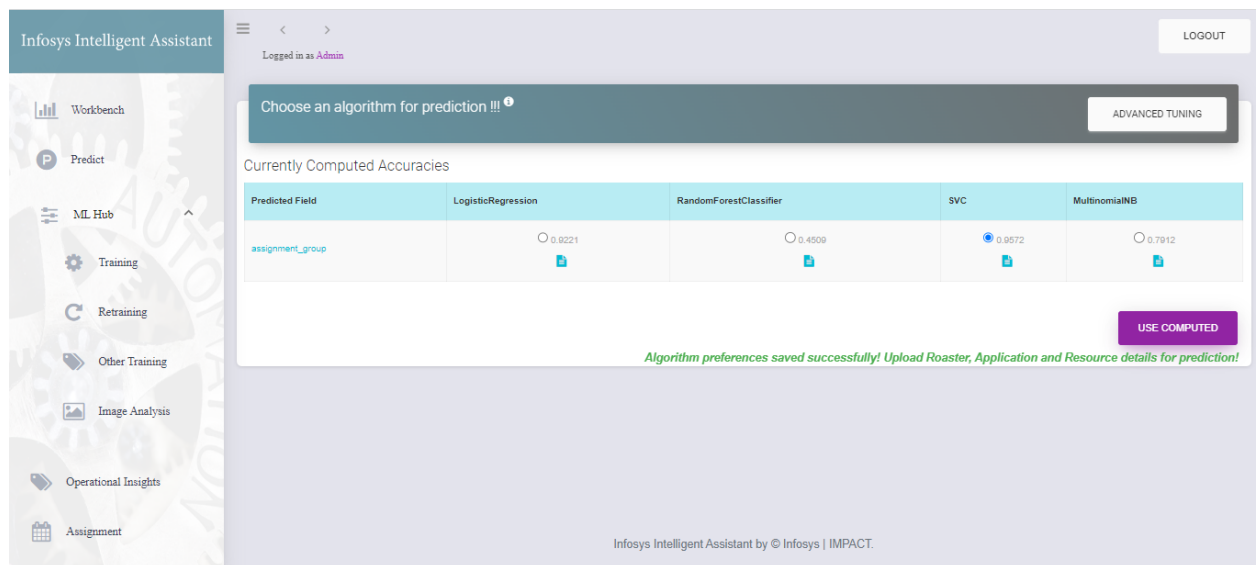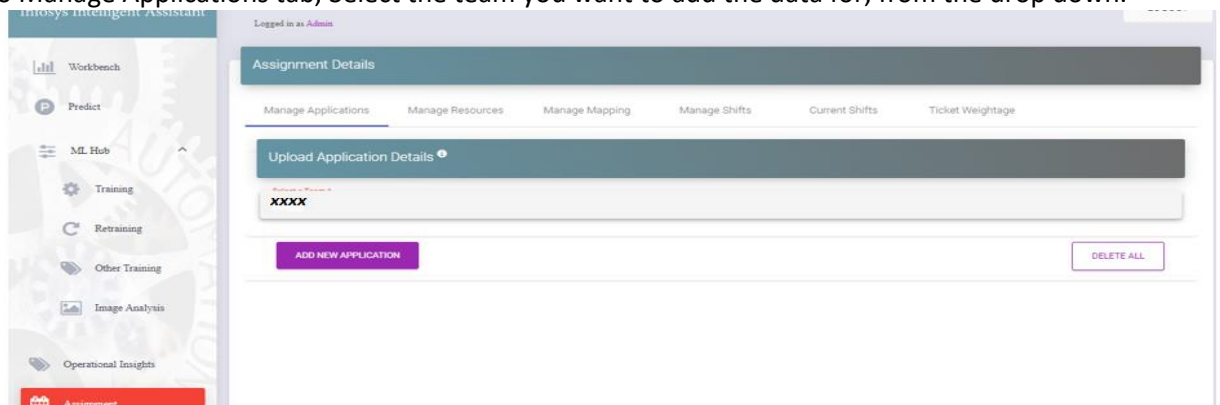

Now you can go ahead and upload supporting documents in Assignment module for prediction.

Steps to upload supporting documents in Assignment module :
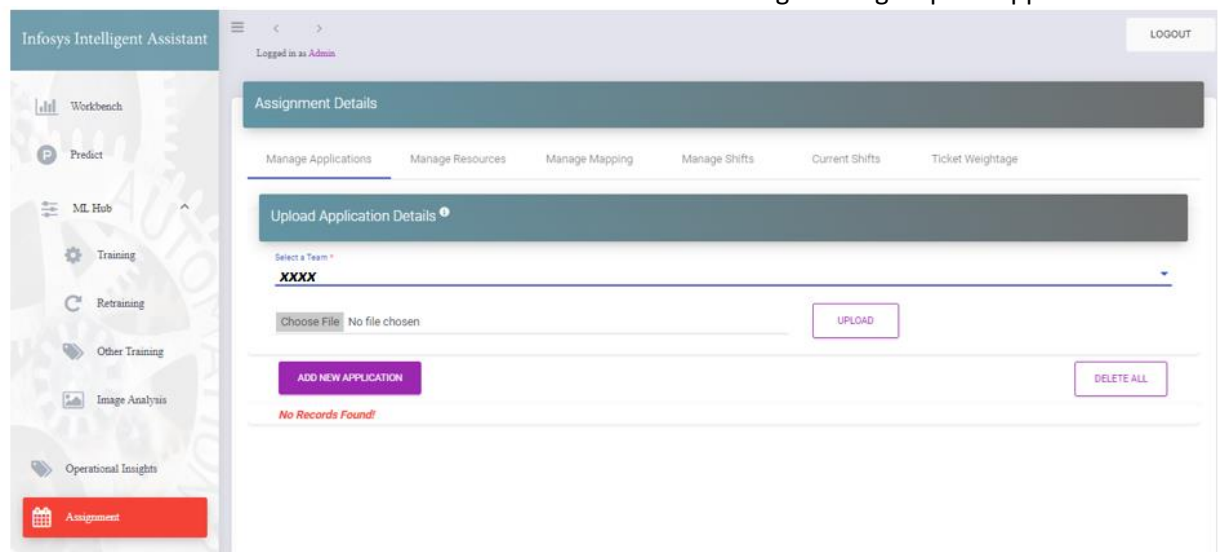
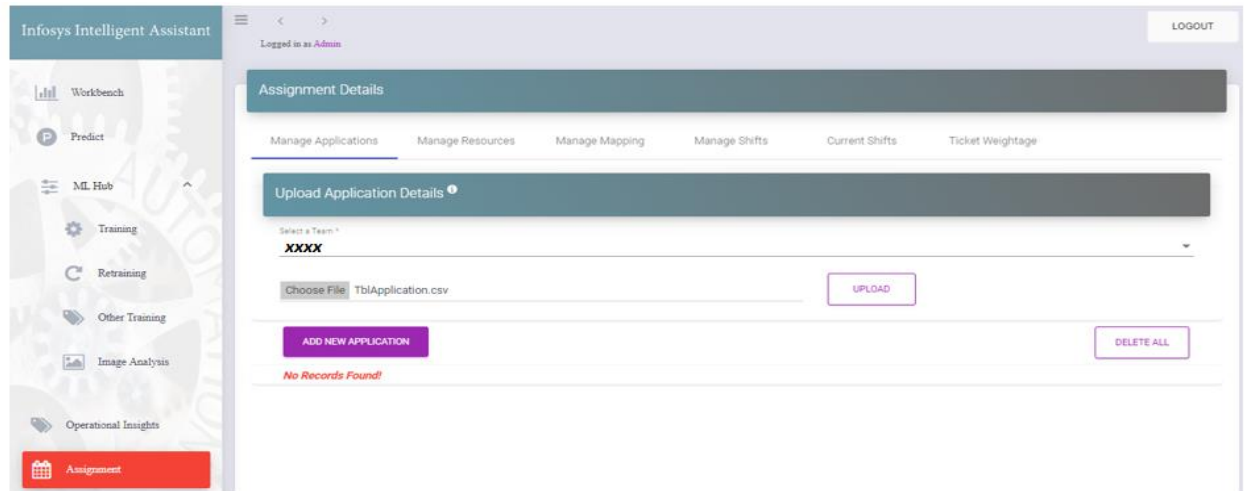Below is screenshot of Assignment Module

1. Go to Manage Applications tab, Select the team you want to add the data for, from the drop down.
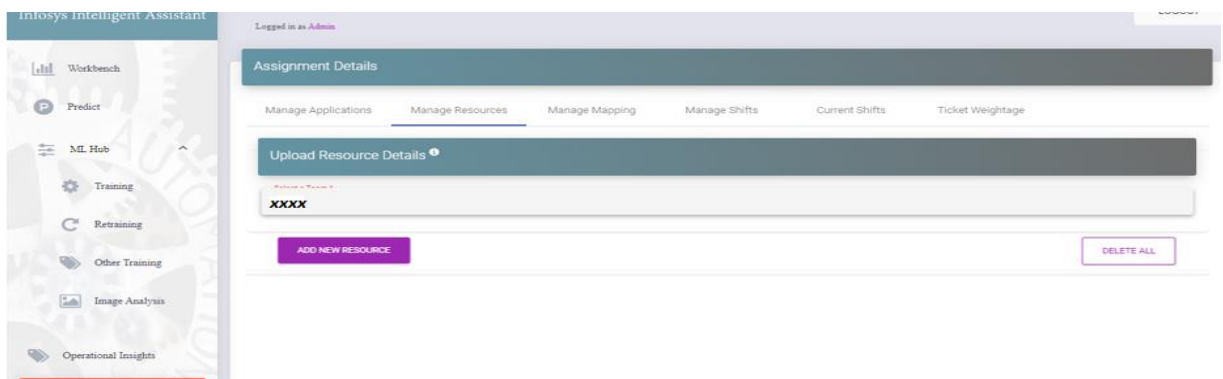

2. Choose the csv file here which has relevant information about the assignment groups or applications.
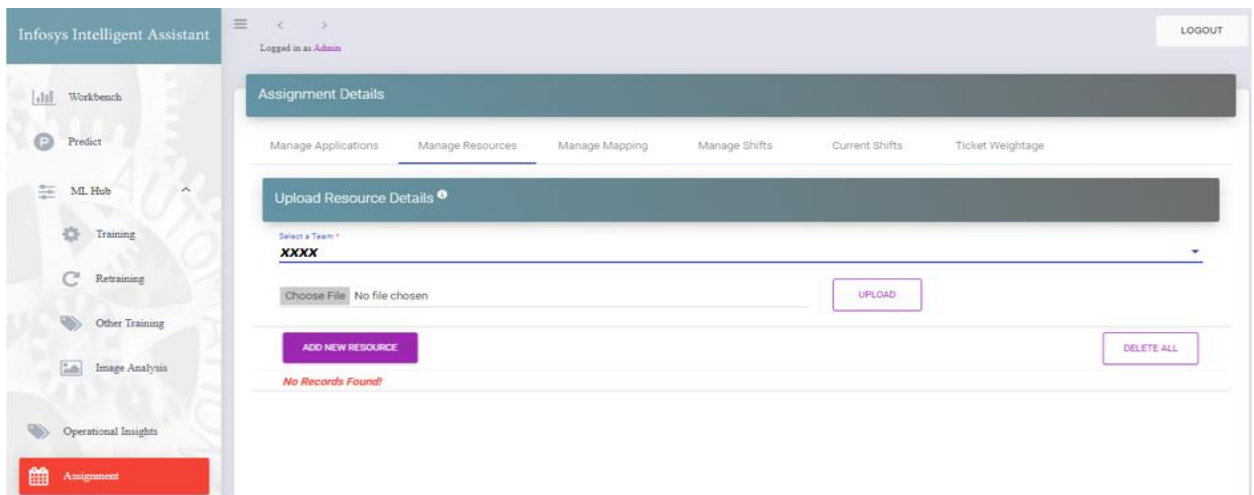

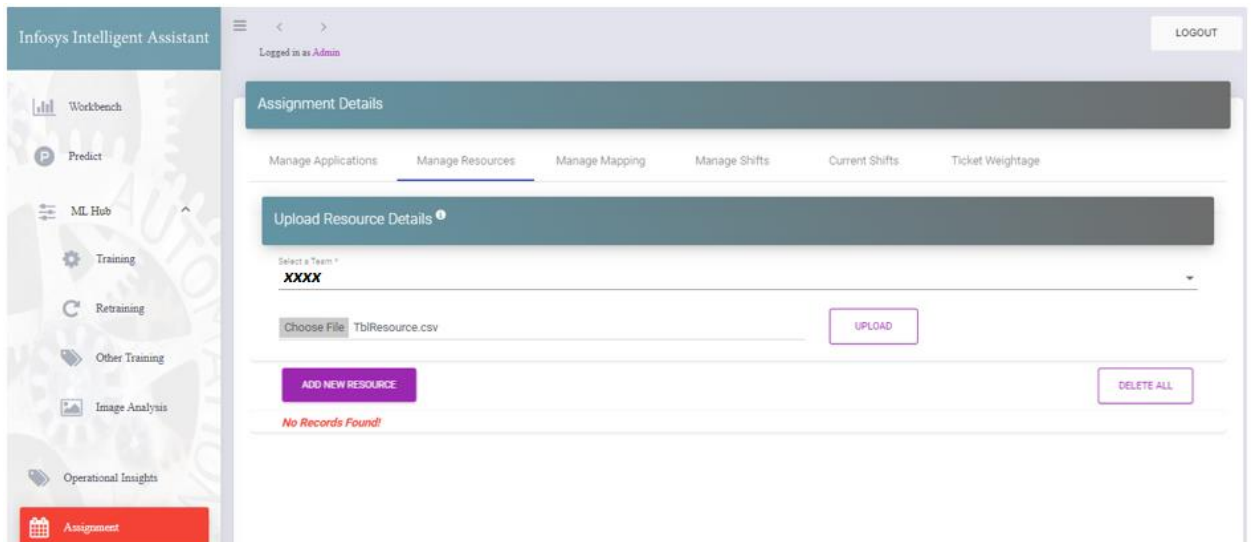3. Click on Upload to upload csv data.

1. Click on Manage Resources tab, Select the team you want to add the data for, from the drop down.

2. After Selecting the Team, choose the csv file which contains the work details about a resource.

3.Click on Upload to upload csv data.

Then go to Manage Shift tab, select the team and upload the excel file which contains the shift details of the resource.

The last component of the module is the Ticket weightage. Here, select the team and upload a ticket details via csv file, such as Ticket type, priority, status, weightage details.
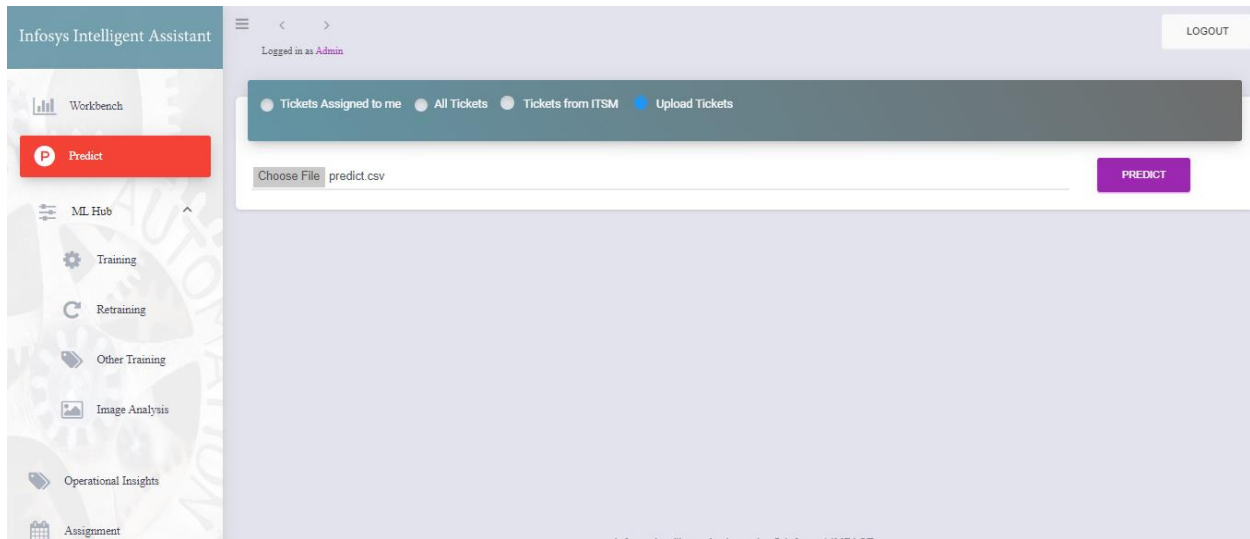
Once we have uploaded all the relevant files here, we can now proceed with the prediction of the assignee for the tickets.

Uploading data set for Prediction:

Below is screenshot of Prediction Module
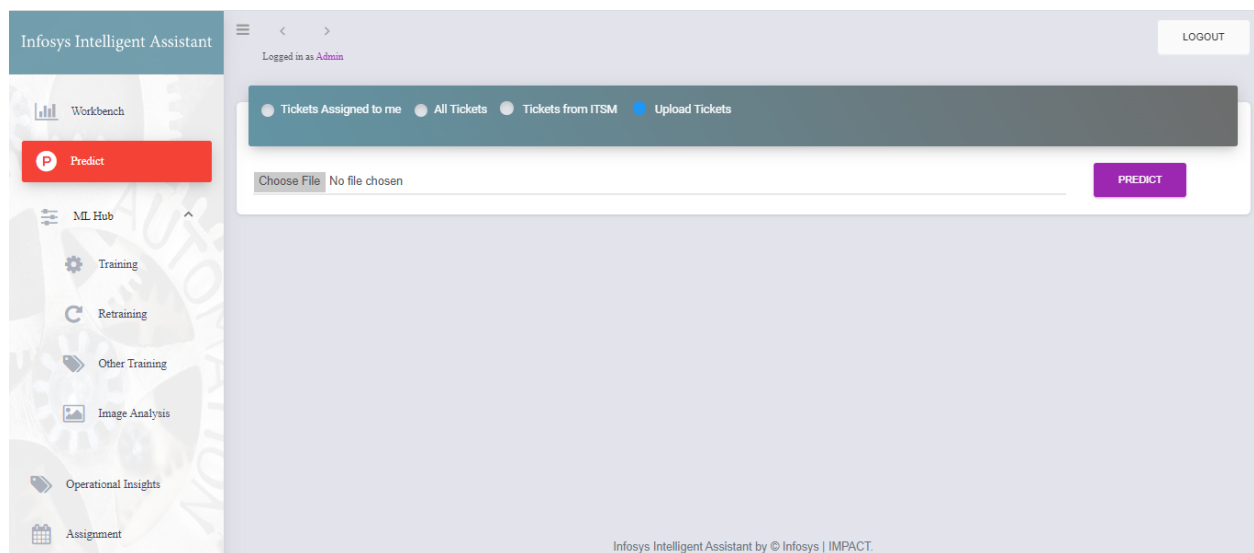
Step 1: Here choose the csv file to upload for prediction.

Step 2: Click on Predict button to start prediction for the tickets.
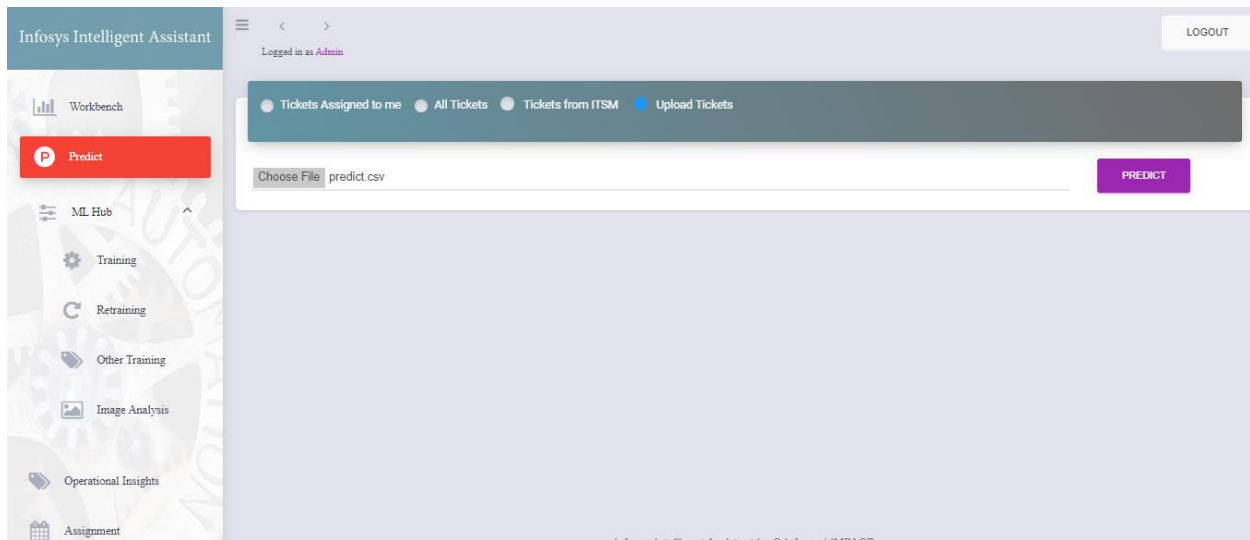
Once the tickets given for prediction have been Predicted, A Data Comparison & Validation Page Opens. In this page you can see the various ticket details as per uploaded dataset along with Ticket Number, Predicted Assignee, Raw assignment group and Predicted assignent group.

- ## Service Now Setup

Step 1 : Go to https://developer.servicenow.com/dev.do

Step 2 : Click on "**Sign up and start building** ". you will be navigated to sign up page enter all the required details and clik on sign up.

Once it is Done you will get get below message

Thank You!

A ServiceNow ID has been created for you with xxxxxxxxxxxxx@gmail.com. This application requires you to verify your email. Please check your email for a link to verify your account. After verification you can login to this application.

Please Note: The email will be valid for 24 hours.
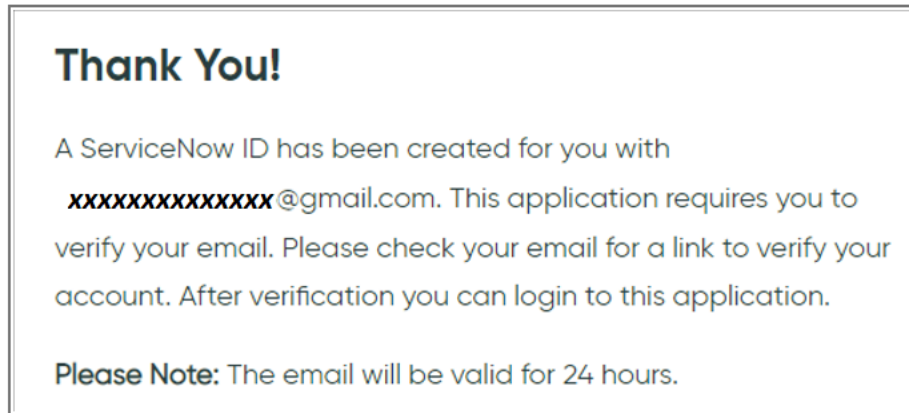
You will receive a mail like shown below click on verify Email.

Hello XXXXX ,

You recently registered with ServiceNow - Developer Program. You are receiving this email so we can confirm this email address for your ServiceNow ID.

Please click below to verify your email address:

Verify Email

If clicking on the above button does not work, please copy and paste the URL below in a browser to verify your email address:

https://signon.service-now.com/x_snc_sso_auth.do#/

You will get this verification completion mail.

Thank You!

Your email: **XXXXXXXX**@gmail.com has been verified. Please click below to login to the application.

Login

Click on **login** and give the required credentials.
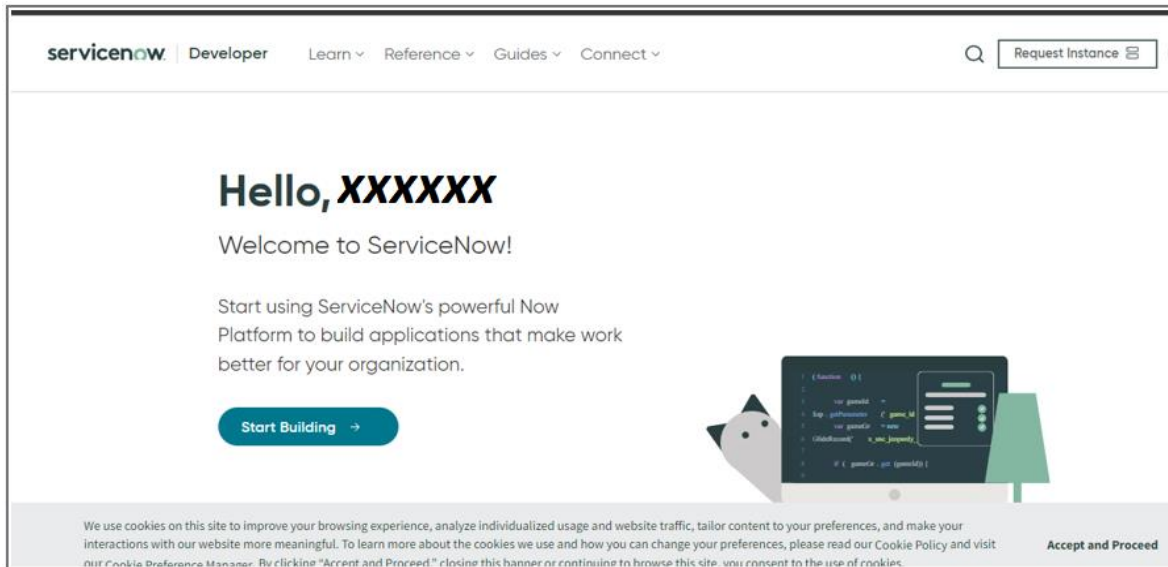
Click on **"request Instance"** once it is completed click on start building this page will be shown.

Step 1 : Click on All :

Step 2 : Remove All previous data

Uploading the Data :

1. **Uploading user details :**
   for uploading tickets search for user click on the one which is inside system security.
   To upload the new users first prepare the file update these fields email,firstName,lastName , user id , password fields and upload the user in Service Now.
   Right click on user id > click on import > choose the file location > click on upload > click on preview imported data (validate if all got uploaded) > click on complete Import .
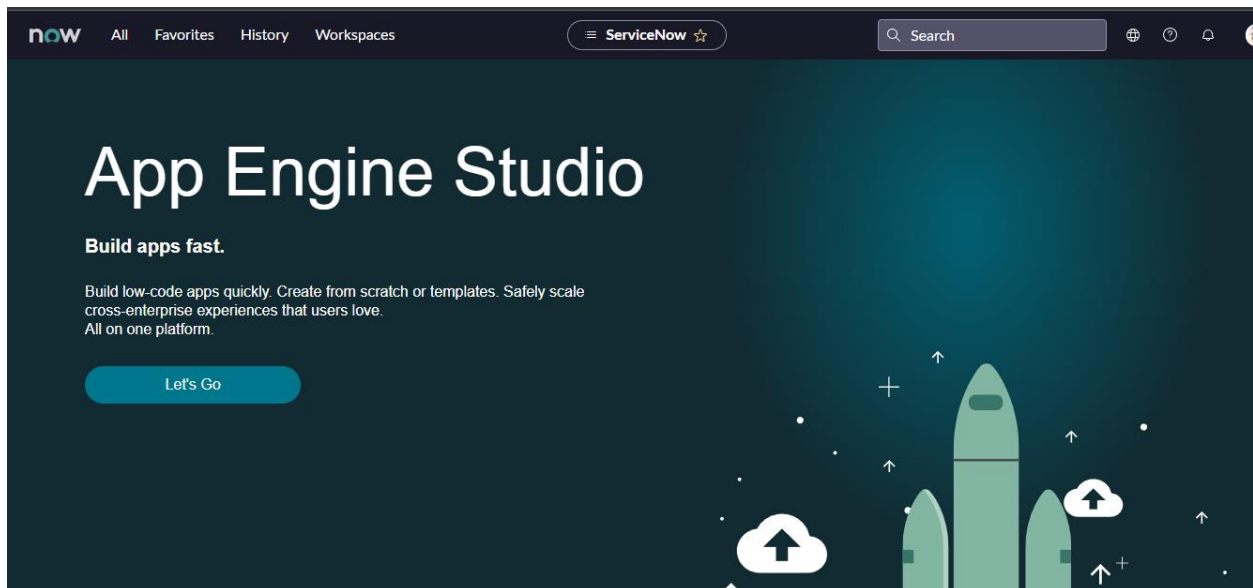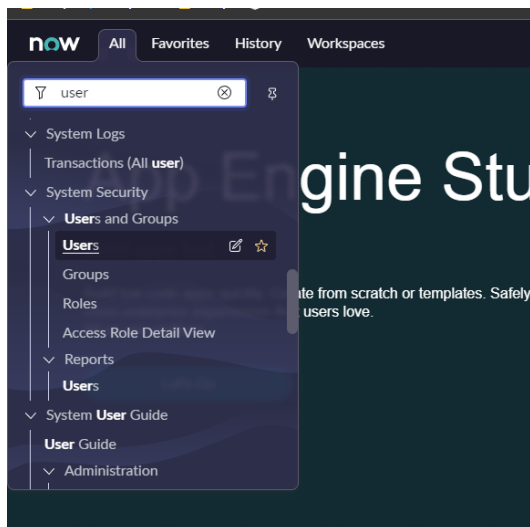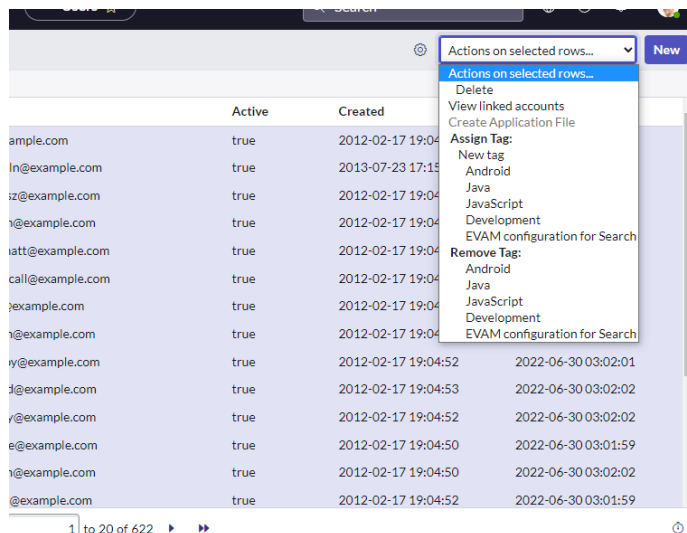
2. **To upload assignment group :**
   for uploading tickets search for group click on the one which is inside system security.
   To upload the assigment groups first update these fields name and description in sys_user_group_insert file.
   Right click on Name> click on import > choose the file location > click on upload > click on preview imported data (validate if all got uploaded) > click on complete Import .

3. **To upload tickets in bulk :**
   for uploading tickets search for incident click on the one which is inside service desk.
   To upload the tickets first update the required fields use the template file.
   Right click on Number > click on import > choose the file location > click on upload > click on preview imported data (validate if all got uploaded) > click on complete Import .

To integrate it with IIA :

Now go to your profile click on Manage instance password

Manage instance password

Login credentials for your instance:

Instance name: **xxxxx**

Instance URL: **https://xxxxxxxxx.service-now.com/**

Username: **xxxxxx**

Password: **xxxxxx**

Update your credentials in mongodb campass in TblITSMDetails collection.

Key	Value	Type
∨ ▣ (1) ObjectId("5c90869e22571b30106eca69")	{ 8 fields }	Object
☐ _id	ObjectId("5c90869e22571b30106eca69")	ObjectId
▣ CustomerID	1	Int32
▣ UserID	*XXXXXX*	String
▣ password	*XXXXXX*	String
▣ ITSMToolName	SNOW	String
▣ MEUrl	https:// *XXXXX* service-now.com/	String
▣ MeAuthToken		String
▣ ITSMInstance	*XXXXXX*	String

- ## IIA Deployment
  ### Build Config:
  Modify the Version and build as required in build config so that it will reflect in iia wheel package


```yaml
build_config.yaml

name: XXXXXXXXX
version: 3.0.0
build: 0.0.1
author: XXXXXXXXX
author_email: XXXXXXXXXXXXXXXX@infosys.com
description: Infosys Intelligent Assistant
long_description: Infosys Intelligent Assistant
classifiers: ["Programming Language :: Python :: 3",
              "License :: OSI Approved :: MIT License",
              "Operating System :: OS Independent",]
package_dir: {"": "src"}
packages: src
python_requires: ['>=3.6']


name: XXXXXXXXXXXXXXXXX
version: 3.0.0
build: 0.0.1
author: XXXXXXX
author_email: XXXXXXXXXXXXXXXX@infosys.com
description: Infosys Intelligent Assistant
long_description: Infosys Intelligent Assistant
classifiers: ["Programming Language :: Python :: 3",
              "License :: OSI Approved :: MIT License",
              "Operating System :: OS Independent",]
package_dir: {"": "account_specific"}
packages: account_specific
python_requires: ['>=3.6']
```

Open command prompt and issue **set PYTHONPATH=src & python create_wheel_file.py** to create iia wheel file package for deployment. Package will get created inside **dist** folder upon succesful build.

| Name	Date modified	Type	Size
xxxxxxxx_build_0.0.1-py3-none-any.whl	7/19/2022 1:51 PM	WHL File	411 KB
xxxxxxx.0-build-0.0.1.tar.gz	7/19/2022 1:50 PM	GZ File	273 KB

Deploy build file:

Install the same in client/deployment environment to deploy the code on issuing

pip install iia-3.0.0_build_0.0.1-py3-none-any.whl in command prompt

• IIA as Service

Download **nssm package** and extract the zip. Place it either in C drive or D drive according to the system drive

Open command prompt and follow the steps below:
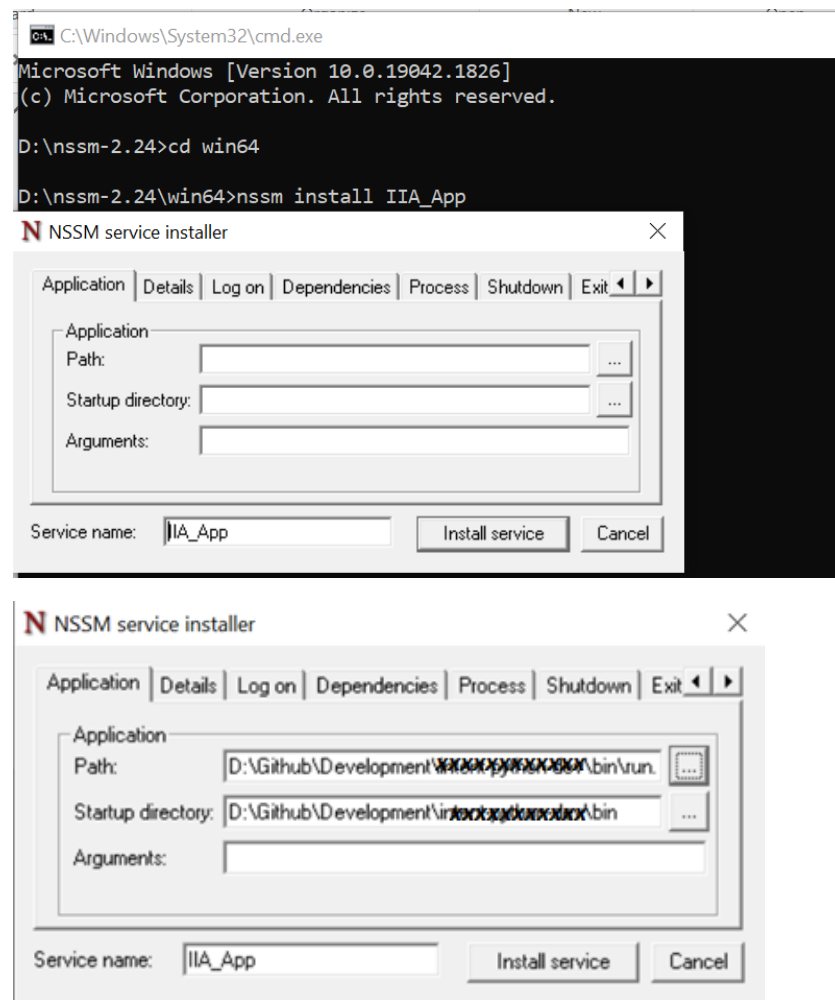
Click **Install** Service and **start** the service under **services.msc**