Genetic-SD Instructions

Begin by downloading our code base from github and checkout the nist branch:

```
cd ~/
git clone git@github.com:giusevtr/private_genetic_algorithm.git
git checkout nist
conda create -n geneticsd python=3.9
conda activate geneticsd
pip install --upgrade pip
pip install -e .
```

Next, download NIST datasets that have been preprocessed. Follow instructions to install preprocessed data:

```
cd private_genetic_algorithm
git clone https://github.com/terranceliu/dp-data
cd dp-data
pip install -e .
git checkout nist
./preprocess_all.sh
```

and run file

```
python3 private_genetic_algorithm/dev/NIST/run_nist.py --dataset=national2019 --epsilon=10 1
```

This will generate synthetic data for the national2019 dataset with privacy parameters 10 and 1. The synthetic dataset are saved in the relative path: sync_data/<target dataset>/<epsilon>/oneshot/sync_data_0.py

The next stop is post procession the synthetic data so that it matches the style of NIST. To post

process, run the following

```
python3 private_genetic_algorithm/dev/examples/NIST/postprocess.py <sync_path>
<save_path>
```

Where <sync_path> is the path of the synthetic data and <save_path> is the destination name,