# Local Data Processing

## Subscribe to data on AWS Data Exchange, export it to your own S3 Bucket, and pull the data down to your local machine. This is for local machine access to the data.

1. Sign up for an AWS account: [https://aws.amazon.com](https://aws.amazon.com/)
2. Subscribe to the climate [Flood, Wildfire, Heat, Wind] risk dataset from First Street Foundation on the AWS Data Exchange: <https://us-east-1.console.aws.amazon.com/dataexchange/home?region=us-east-1#/products?q=First%20Street&s=RELEVANCE>. There is a short wait for approval by First Street. Note: There is no cost for the first 12 months.
3. While waiting for the approval, create a “temporary” S3 bucket in your account.

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1. After getting First Street Foundation access, the data exchange will look similar to this:

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1. Go to the dataset of interest, choose the newest revision, and export to Amazon S3.

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1. Select the bucket that you created in Step #3 and click “Export”.

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1. Repeat this process for each of the four First Street data sets.
2. Go to your S3 bucket and download everything to your local machine.

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1. Delete the bucket to avoid any potential recurring storage fees.

* Select the bucket you want to delete and click ”Delete”,
* Empty the bucket, then enter the name of the bucket to delete it.

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# Processing Data Via Amazon S3 Buckets

## Accessing data in your S3 bucket without downloading it to your local machine. This done by using generated access keys and using API calls to AWS.

1. Go to Security credentials under your AWS account, click “Create access key”, then.

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1. Store your Access key and Secret access key.

Store these values in the *credentials.json* file located in the *Jupyter Notebooks* folder.

{

"tract\_S3\_URI": "[your S3 URI here]",

"state\_S3\_URI": "s3://justindemo123/heat/v1.2/summary/fsf\_heat\_state\_summary.csv",

**"key": "[your access key here]",**

**"secret": "[your secret access key here]"**

}

1. Follow Steps 2-7 of the “Local Data Processing” process to populate an S3 bucket with the First Street data sets.
2. Locate the S3 URI of the object that you want to access. This is found by browsing your S3 buckets as shown below.

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1. Record the S3 URI in *credentials.json* file:

{

**"tract\_S3\_URI": "[your heat tract S3 URI here]"**,

"state\_S3\_URI": "s3://justindemo123/heat/v1.2/summary/fsf\_heat\_state\_summary.csv",

"key": "[your access key here]",

"secret": "[your secret access key here]"

}

1. Record the S3 URI of the state’s heat summary and record its location in the *credentials.json* file:

{

"tract\_S3\_URI": "[your heat tract S3 URI here]",

**"state\_S3\_URI": "[your state summary S3 URI here]",**

"key": "[your access key here]",

"secret": "[your secret access key here]"

}

This completes the steps needed to access AWS in support of the example Jupyter Notebooks.