

**Address Linkage Key-  
Milestone 1  
Presentaion-IT7993**

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# Milestone 1 Deliverables Status Update

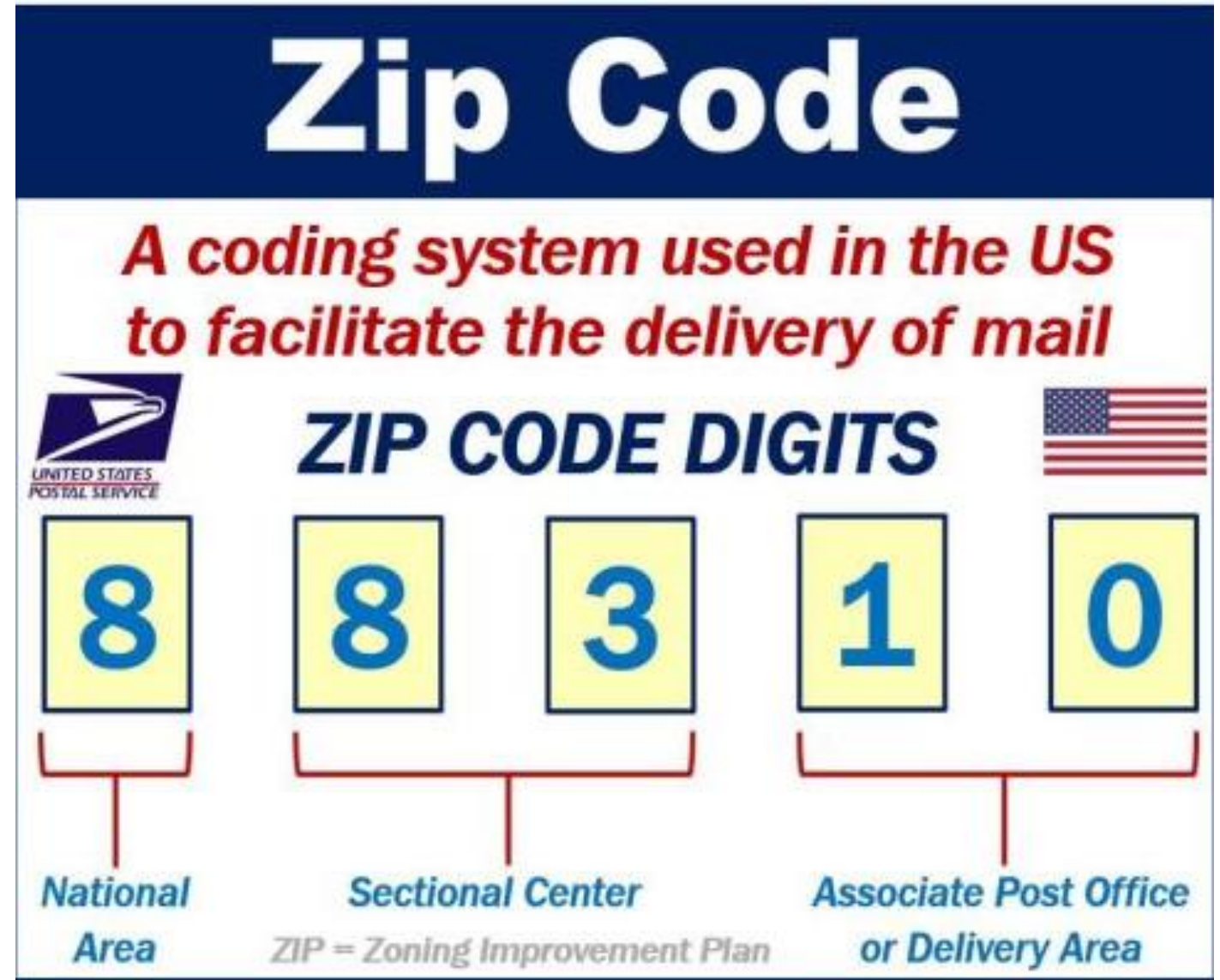
- Research on USPS formatting and processes
- Analysis of tools
- Setup and installation of remote tools and development environment

# Overview of Project:

- Developing a tool/set of tools to compute the delivery point (DPBC) of a given address following the guidelines of USPS.
- The tool is initially developed and tested for properly formatted address, as part of further improvements it will be tested for improper address format.

## What is Minimally Viable Product?

- A tool or set of tools which allow me to compute the delivery point code of a given address given:
  - 1) A “clean” address (as defined by publication 28)
  - 2) ZIP and ZIP+4 appended
  - 3) A dataset which contains Highrise addresses



## Delivery Point Barcode Rules (Primary)

<p><b>1. General Rule</b></p> <p>Address: 1234 MAIN ST (PO BOX 44, RR 1 BOX 154, HC 1 BOX 1264)  DPBC: 34 (44, 54, 64)</p> <p>Use last two digits. Print code characters in DPBC representing last two digits of primary street number (or post office box, rural route box, or highway contract route number).</p>	<p><b>8. Leading/Embedded Alphas</b></p> <p>Address: 23S41 MAIN ST (23S4 MAIN ST, 2W3S1 MAIN ST, MAINS ST, C8INT)  DPBC: 11 (04, 01, 01)</p> <p>Print code characters in DPBC representing last two digits to right of alphas. If single digit to right of alphas, add leading zero.</p>
<p><b>2. No Numbers</b></p> <p>Address: MAIN St (RR 1, HC 1)  DPBC: 99 (99, 99)</p> <p>Use 99. Print code characters in DPBC representing last two digits of primary street number (or PO Box, rural route, or highway contract route number).</p>	<p><b>9. Slashes (/)</b></p> <p>Address: 123/4 MAIN ST (PO BOX ¼, RR 1 BOX 123/124/125, H 3 BOX 11/13)  DPBC: 23 (03, 23, 07)</p> <p>Print code characters in DPBC representing 99 whenever a slash appears directly next to numeric in the primary street number.</p>
<p><b>3. Single Digits</b></p> <p>Address: 8 MIAN St (PO BOX 1, RR 1 BOX 2, HC 1 BOX 3)  DPBC: 08 (01, 02, 03)</p> <p>Add leading zero. Print code characters in DPBC representing leading zero and single digit.</p>	<p><b>10. Other Embedded Symbols</b></p> <p>Address: 1.23 MAIN ST (PO BOX 1-3, RR 1 BOX 1.23, HC 3 BOX 11*7)  DPBC: 23 (03, 23, 07)</p> <p>Use last two digits to right of the symbol. Print code characters in DPBC representing last two digits to the right of all symbols (except slashes), such as periods and hyphens appearing in primary street numbers. If single digit to right, add leading zero.</p>

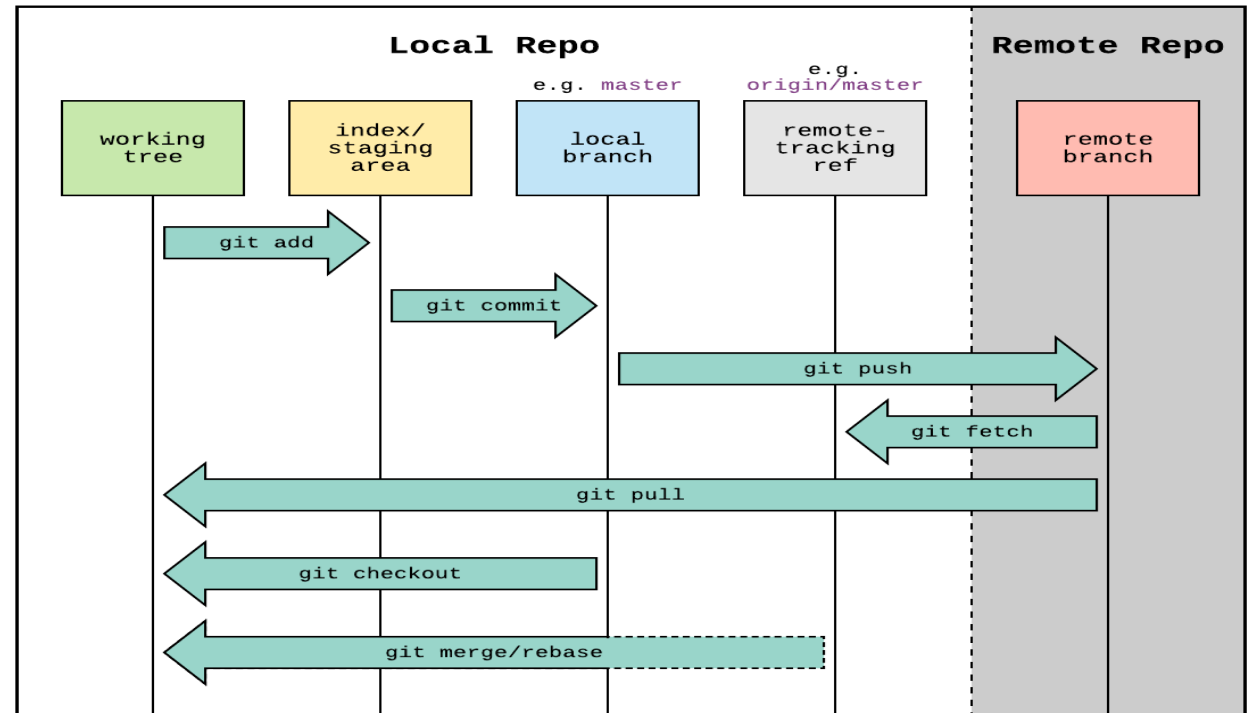
# Required Installations, Tools and Technology

- Git
- Tortoise Git
- Putty Suite Generator
- Docker Installation setup
- pyspark
- Access to Jupyter notebook and git hub

# Getting Connected – Source Control

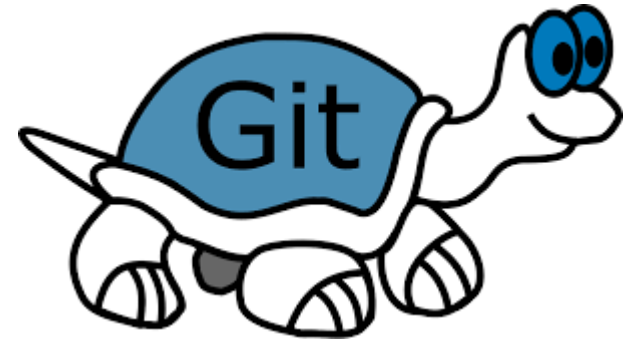


- Git is a distributed version-control system for tracking changes in any set of files.
- Git is built for the world's largest software implementations (Linux).
- As part of project implementation, we are using a subset of git features.
- TortoiseGit is a Windows UI on top of Git.
- Gitlab is a Web UI on top of Git.



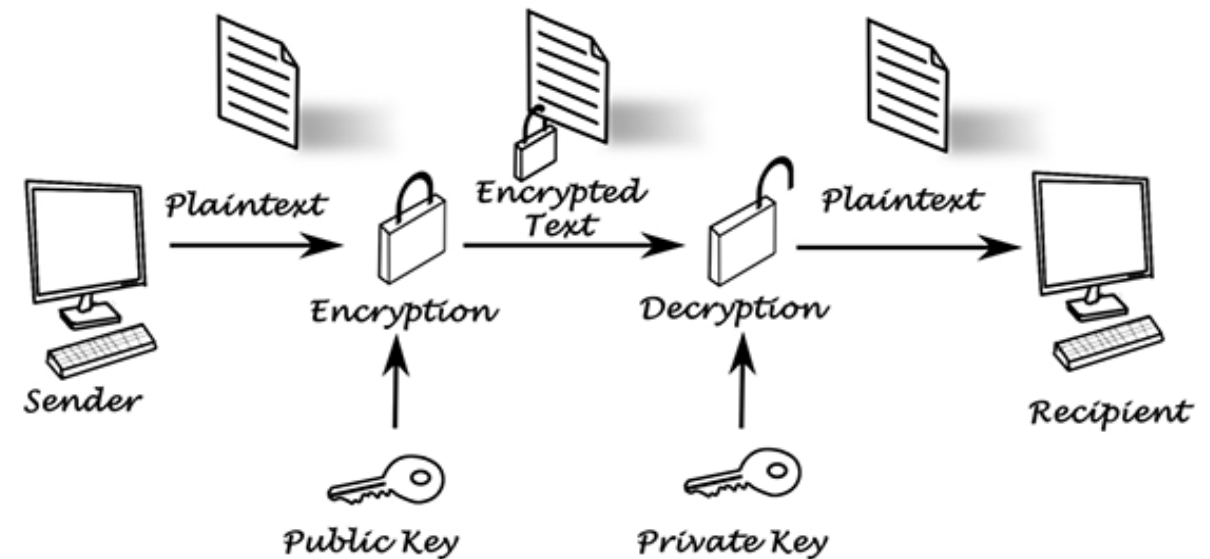
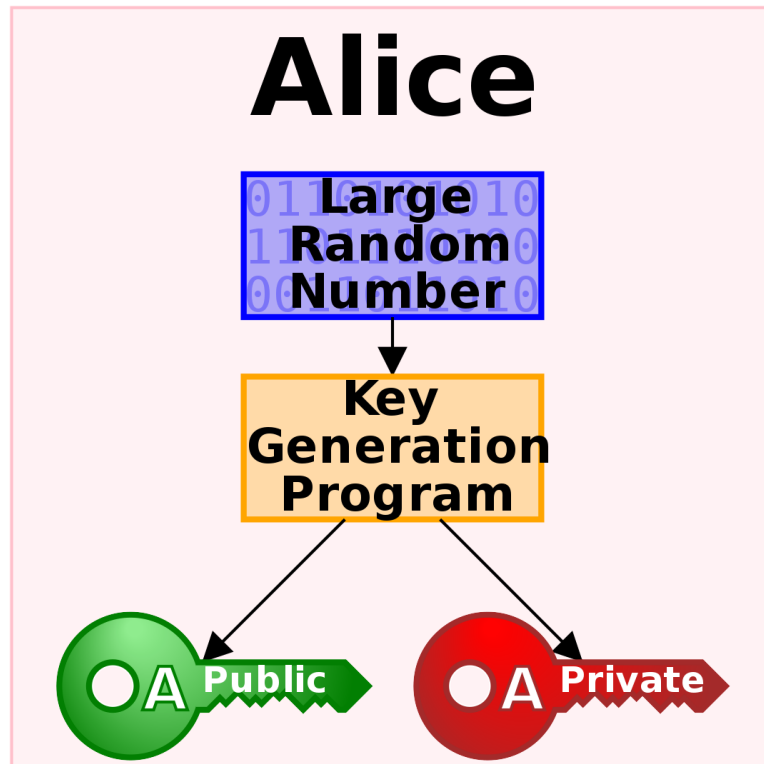
# TortoiseGit

- Using tortoise git to get updated version of code into the local machine and vice versa.
- Commands: Git Sync -to get the clone copy of code, Git Commit- to push the updated code to git.





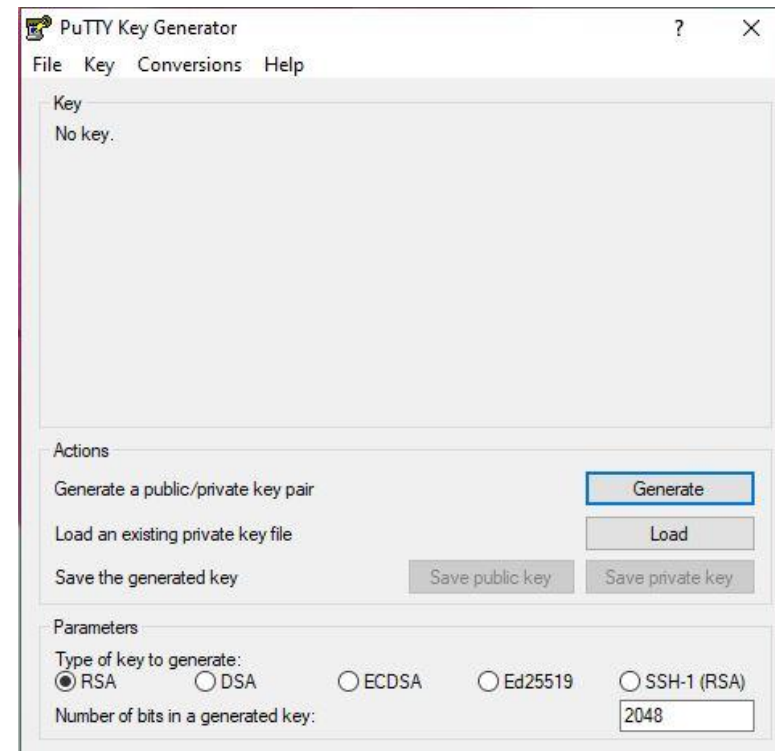
# Public and Private Key:



GPG Keys Encrypt Files and Messages (at rest)  
SSH Keys Encrypt Data and Streams (in transit)

# Steps to generate keys using putty:

- Open the Putty Key Generator.
- Select “RSA” under type of keys to generate
- Select the “Generate” button under the actions pane.
- Save the keys by navigating to file option.



# Steps for starting docker container



Link to access for  
installation :  
<https://docs.docker.com/docker-for-windows/install/>



Setting the path to  
required directory.



Ex :  
C:\Users\AddressLi  
nkageKey



Code to run docker:  
`docker run -it --rm -  
p 8888:8888 -v  
${PWD}:/home/jov  
yan/work  
jupyter/pyspark-  
notebook`

# Can we include this?

- Client information
- Datasets
- Report project experience like challenges, lessons learned, areas to improve, etc.
- Review and discuss your Gantt chart.
- Discuss the plan for the next phase.

# REFERENCES

1. [USPS Publication 28 \(Postal Addressing Standards\)](#)
2. [USPS CASS Technical Guide](#)



***THANK YOU***