Syllabus

# Chapter1: Installation

1. Anaconda (<https://www.geeksforgeeks.org/how-to-install-anaconda-on-windows/>)
2. Launch Jupyter Notebook
3. git (<https://git-scm.com/downloads>)
4. github (<https://desktop.github.com/>)
5. git account creation
6. IntelliJ Community version (<https://www.jetbrains.com/idea/download/?fromIDE=#section=windows>)

# Project 2: Git

1. Create Github project
   1. Install git
   2. Install github
   3. Create any git project by git init command
   4. From main branch create another branch, say testing
   5. Testing branch make some changes
   6. Commit the changes
   7. Create github account, remote
   8. Publish this git project to your github account
2. Homework:
   1. Check quick 5 minute video on git desktop from youtube
   2. Quick 5 minute video on github
   3. Explore <https://github.com/secmlops/ML2022>

# Project 3: Integration

1. Create jupyter project
2. Create intellij project
3. Develop this as github project
4. Publish this to github
5. Make jupyter

# Project 4: Read/ Write Data

1. Read data using different methods and sources
   1. Read data from csv
   2. Read data from websites
   3. Read data from database
   4. Read data from github
2. Write data to different sources
   1. Write to csv
   2. Write to websites
   3. Write to database
   4. Write to github

# Project 5: Stock Market API

1. consider stock market data possibly
2. develop simple algorithm of macd indicators and buy sell stock signals in excel first and in python second
3. write there signal to csv, database etc
4. Develop simple api in python to write, read these signals to database
5. Combine different signals by using some machine learning method say random forest or Adaboost.
6. Integrate this machine learning components to already developed systems and get some familiarity about MLops.

# Project 6: Deployment an App

1. Creating python app
2. Deploy this app to free cloud
3. Aws, free account, lambda

# Project 7: Excel

1. Replicate the project 5 from python to excel