**Python topics:**

* Introduction
* Interpreter working in python
* Keywords
* Memory management python
* Data types(cover all methods related to collection data types)
* Type casting
* Insinstance, string formats(r, f, place holders, format())
* Operators
* Conditional statements
* Loops (for, while, for else)
* Loop control statements( pass, continue, break)
* Copy, deep copy
* Enumerate, default dict, zip, zip\_longest
* Functions
* Scopes in python
* Function parameters
* Different arguments passing in functions (positional, keyword arguments, variable positional, variable keyward)
* Return statement in functions
* Recursion
* Comprehensions
* Lambda, map, filter
* File handling
* Os commands
* Path commands
* File commands
* Normal file handling (read, write)
* Csv file handling (read, write)
  + Normal read, write
  + Dict read, write
* Json, pickle
* Decorators
* Regular expressions
* Exception handling
* Yield statement
* OOPS
* Class, object
* Init constructor
* Making class callable
* Class decorators
* Inheritance
* Encapsulation
* Polymorphism
* Abstraction
* Threading
* Interfaces
* Method overriding
* Inbuilt libraries, modules,

**Need to focus:**

* Patterns (two stars, three stars)

**Selenium topics:**

* Selenium versions
* Web driver
* Selenium architecture
* HTML tags identification
* Diff browser drivers & initializing it
* Locators
* Web element finding methods
* XPATH & CSS
* XPATH
  + parent-child
  + depemdent – independent technique
  + using indexes in xpath
  + contains
* Select class
* Synchronization ways
  + Waits(explicit, implicit)
  + Visibility, enable checking
* Action class
  + Mouse hovering
  + Click()
  + Send keys
  + Double click()
  + Drag and drop
  + Right click on element
  + Keyboard actions
* Window handling
  + Switching between different opened tabs and windows
  + Opening a new tab or window & switching to it
* file upload
* file download
* assertions
* **Screen freeze**
* Alerts & java pop-ups handling
* **Pop-ups handling (Authentication and Adds pop-ups)**
* Frames
* Calendar handling
* Taking screenshots with date & time
* Java script execution
* Pytest
* Pytest fixtures
* Conftest
* Different scopes of fixtures (class, module, function, session)
* Test setup & test tear down
* Grouping tests using mark
* Ignoring or skipping scripts
* Running failed test only using pytest
* Generating reports
* Different pytest commands
* Different exceptions in selenium
* POM Framework setup
* OPPS methods used in framework
* Making data driven of POM framework (excel reading, writing)