Name: **Dhruvil Patel Assignment 1**

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**Source Code:** [**https://github.com/Dhruvil30/A1**](https://github.com/Dhruvil30/A1)

Documentation

A1 class

* A1 class contains key variables manually made key to decrypt cipher text.
* Rename cipher text file to “cipherText.txt” or replace file name on line 41 in main method of class A1.
* Call the methods as per the requirements from SubstitutionCipher class.

SubstitutionCipher Class

* Constructer **SubstitutionCipher** initialize the object and takes 2 arguments key for given object and name.
* Method **validateNullArguments** validates the argument provided. If the argument is null, returns false and print “Provided argument is not valid.” message.
* Method **keyIsValid** verifies whether provided key is valid or not. The key to be valid it should be of the type of map, and the key value pair need to have all 26 unique characters (A-Z). It returns true if key is valid and false otherwise.
* Method **cipherText** checks if given cipher text file context can be decrypted from given key. If key is valid and text content can be decrypted it decrypt the message and returns true else it returns false.
* Method **decodeText** returns the decrypted text of cipher text file using the provided key.