How To Use & Read Properties Files in Selenium

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Read A Property File in Java
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1. Why do we need to read a property file?
2. what is property file?   .properties
3. how to do?
```

.properties files are mainly used in Java programs to maintain project configuration data, database config, or project settings, etc. Each parameter in properties file is stored as a pair of strings, in key-value pair format, where each key is on one line. You can easily read properties from some file using an object of type Properties.

In Selenium, .properties files are mainly used to store GUI locators/elements, and also Global fields like URL, username, password, file path, database configuration details, etc

Property file eke extension eka - .properties
.properties file eke data read kaala api test data widiyata ganawa.
Meka karanan mekama oneda ? .txt jason data walin puluwan . but meka se karanawa configuration details teya ganna use karanwa.
Meka use karanwa URL,username ,passwors file path database configuration details teya ganna.
Test code eke hard code karanne natuwa mekan store karala ganan puluwan.meka wasiya thamai code base eka non technical kenekta dunnoth browser eke hardcode karala dunnath amarui neh. Me file eke dammoth eyata keyana puluwan neh ethana wetahrak change karanan keyala.

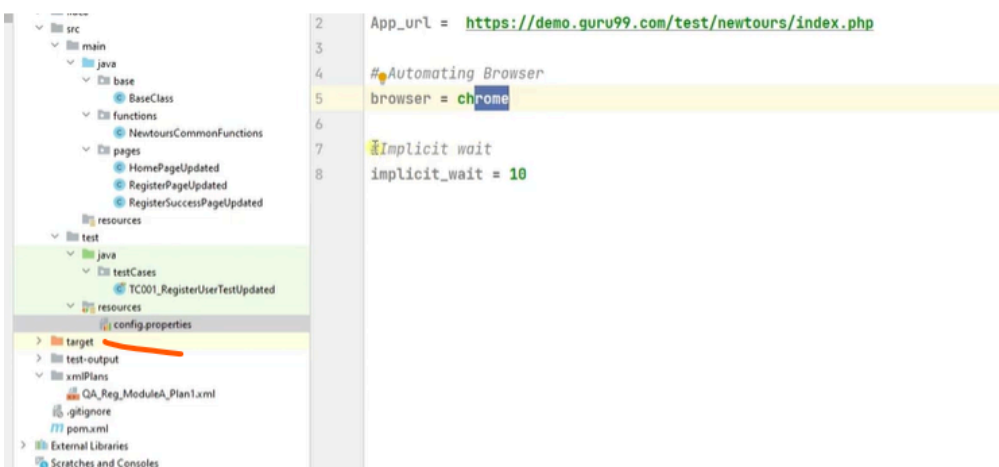Me file eke data stire karanne key value pair ekan

Key = value
Ethkota test layer eke pass karanan ona key eka neh

Ona thana me file eka hadanna puluwan .but standard eka

Test - java - resources - file ekak hadnana - config.**properties**
Meka normal notepad file eka nawe properties file ekak.

Commnet karanne - #


```
2  App_url =  https://demo.guru99.com/test/newtours/index.php
3
4  #Automating Browser
5  browser = chrome
6
7  #Implicit wait
8  implicit_wait = 10
```

Dan base class eke
Config.properties file ekan data read karana code eka liyanna
excel file ekan data read karanna api use kare - FileInputStream

File **identify** karanna onanam - *File*
File eka **data read** karanna onanam - *FileInputStream*
File ekata **data input** karanan onanam - *FileOutputStream*

FileInputStream object eka hadanna .meka athulata pass karanan ona api capture karana file eka. Path eka dammaoth meka kata hari share karana path eka waradinawa neh . eka nisa root folder eke edala danna.

Root folder eka identity karanna puluwan - ("user.dir" + "src\\test\\resources\\config.properies") danna

Eke error ekak enawa . exception handel karanna.

Ethakota method ekata throw karanwa openpage() throw fileNotFoundException.mekan wanan file eka hoya ganan bari unoth meka throw karanna.

Dan apu file loaction eka gaththa neh .

Dan properties file ekan neh data read karanna ekata apita properties keyala class ekak teyenawa java wala (java util eke) ekan object ekak hadanna

Eke load keyala method ekak teyenwa .

Mama load karanan keyanwa file location eka .

Api capture karapu file eka apit fileinputstream eka store kara, eka pass karanna

Ekath throw exception eka throw karanan - override una ioexecotion ekan
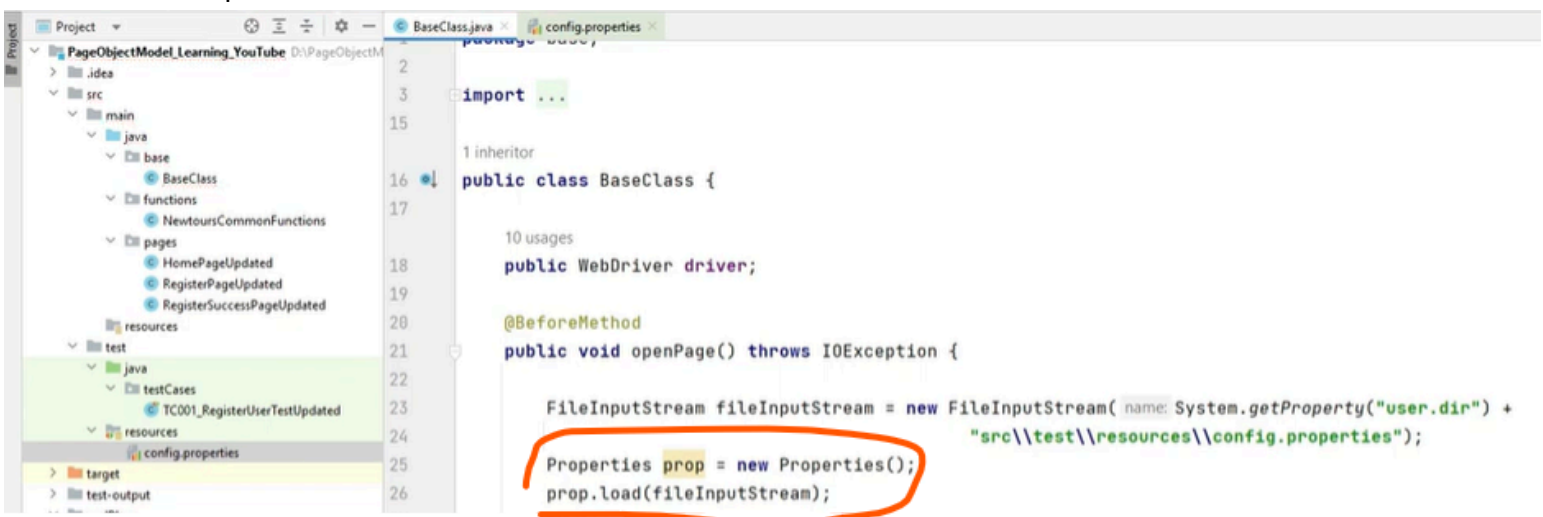
Api dan properties file eka load karala ewarai. Dan teyanne file eka read karanna

Ekata prop keyana eka use karala getpropey method eka use karala key eka pass karanan teyanne.
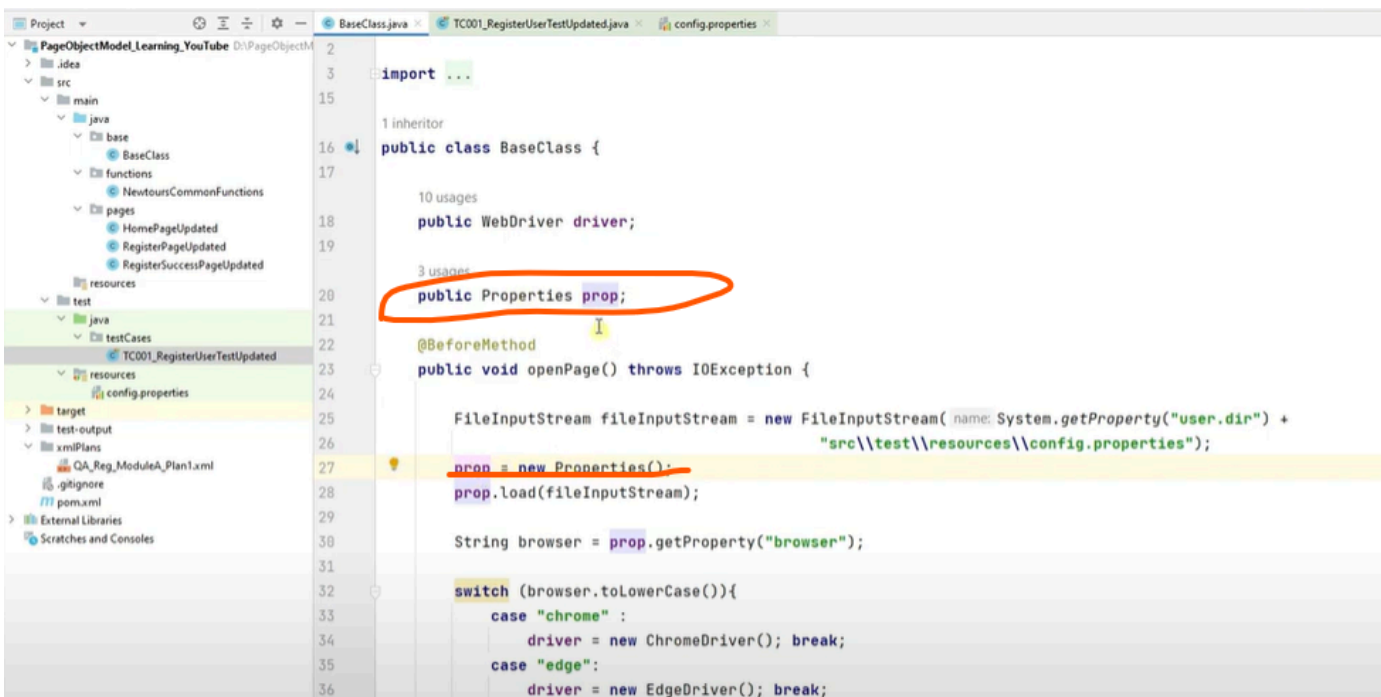
get priory eka keyana eka return karanne string . dan apita panne nati unata prop.getproperty eka store wela teyanna string value ekak. Api eka string ekaka store karanna.

String browser = prop.getproperty("browser")
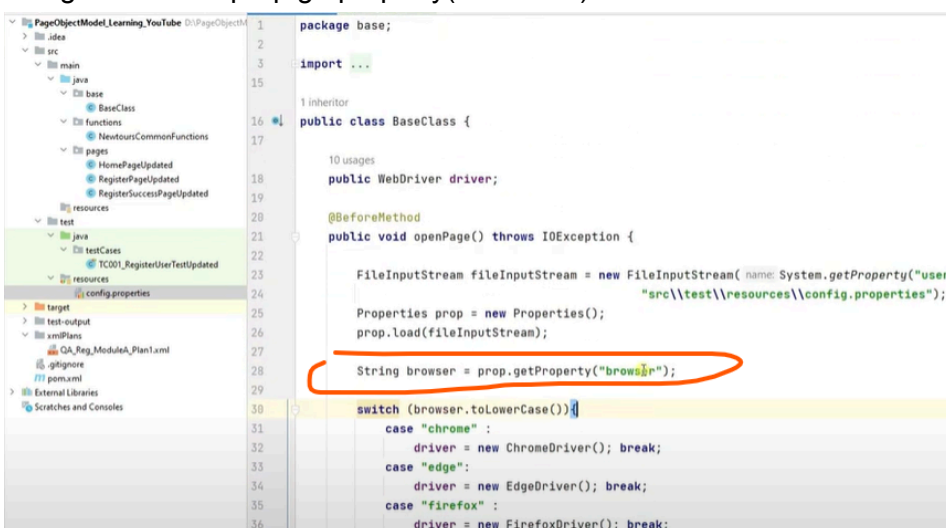
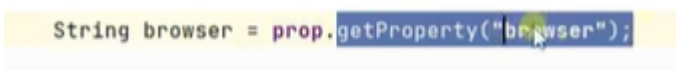Base class ekata wetharak name me file eka use karanna puluwan.

Api hama tc ekama me baseclass eka extend karala teya gananwa neh . eka nisa me file eke teyanan hama detail ekakma enawa tc class(child) ekata.

Ekata api base class ekata gehen me prop keyana eka class level teya gannawa.public danan ona thanak da ganan .

Public properties prop; meka null teyanne @BeforeMetthod eka call unata passe mekata power ekak enawa.

New properties keyana object haduwata pass power ekak enawa.

Ethkoata me power eka himi una Public properties prop; ona thanaka use karanna puluwan.

read karanne kohomada -

Adala key eka danna.eka string ekak store karanna. Anewaranma string eke thamai store karanna wanne . mokada getproperty return karanne string

Dan URI eka gamu

Getpropery accept karanne string

Ofsecond accept karanen long

Meka convert karala danna ona

prop.getPropery ("Implicit wait") meka assing karanawa string implicitwait keyala variable ekakata.meka dan long variable ekak karanna ona.

Eka long imp_wait_log keyala variable ekakata da ganna ona

Eka covert karanne

Long.parseLong(iml_wait) - Long keyala warapping class ekak teyanwa. Eka teyanwa parselong keyala method ekak. Eka dala ekata long variable ekak pass karanwa . eka eya long ekak widiyata covert karala danwa .

Eka pass karanwa ofsecond(imp_wait_long) keyana thanata

Me karapu teka 1 line karanna puluwan

Mulu project ekatama eka property file ekak athida ?
Na testcase level ewa wenama danna ona
Ekata api **SRC - MAIN-JAVA eke utilites keyala folder** ekak hadanawa.
Eka java class ekak hadanawa .propertyfileReader keyala.

Me class eka athule method liyanwa . e method eka haraha apita puluwan resource folder eka yatathe apita ona tharam resource folders hada ganna.property file 50 tebunath adala file ekan adala value eka read karanna puluwan widiyata hada ganan puluwan.
Testcase wala hard code karanna natuwa property file ek teya ganan puluwan.
Hard code data teya ganan puluwan ekama widiya nawe property file keyanan . excel walath teya ganan puluwan.enum class eka teya gannath puluwan

propertyFileReader eke method ekak hadanawa. Eke fileinputStream eka danwa . ethaklta error ekek denawa . eka suggest karana throw eka danan epa . ethkota eya call wena hama thama throw karanna wenawa. Eka nisa more options gehen try catch ekak danna.

File eka digai wagenam eka file class ekan object ekak hadala eka danna.
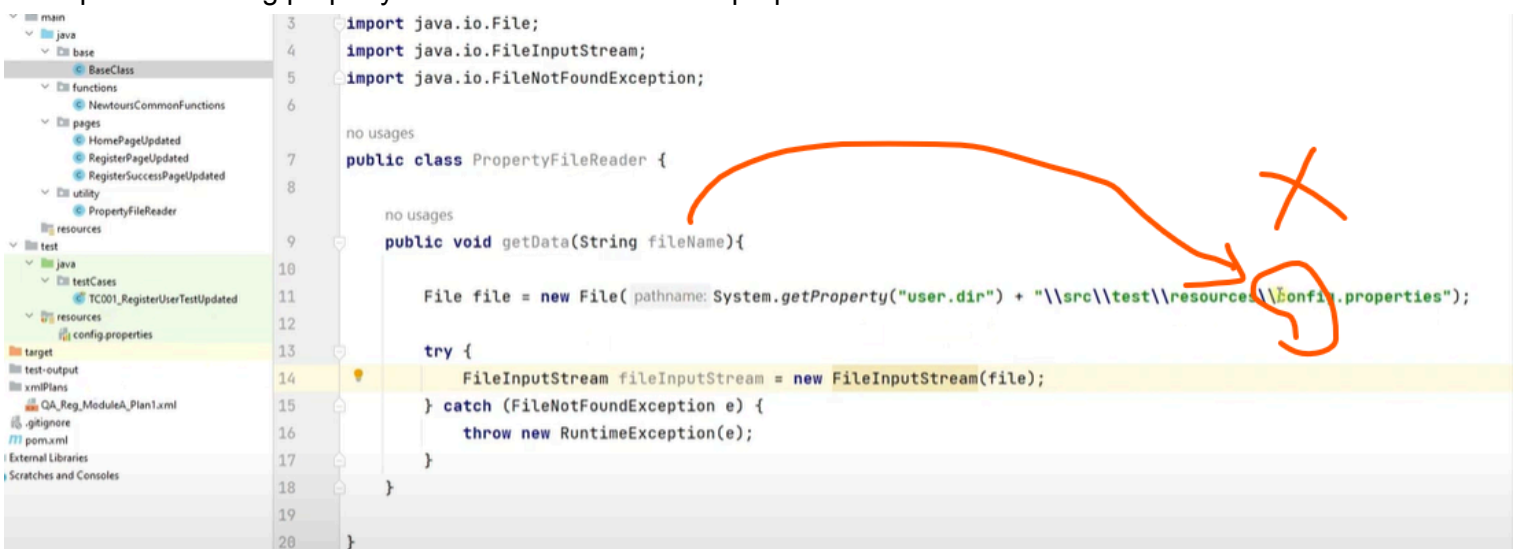
Mama me karanan hadanna kochcahara property file tebunath me adala eka wetharak read karana widiyata hadala denna

Meka path eke config.property danna natuwa - filename.properties danna ona

meka string ekak nisa "+filename+" dannna
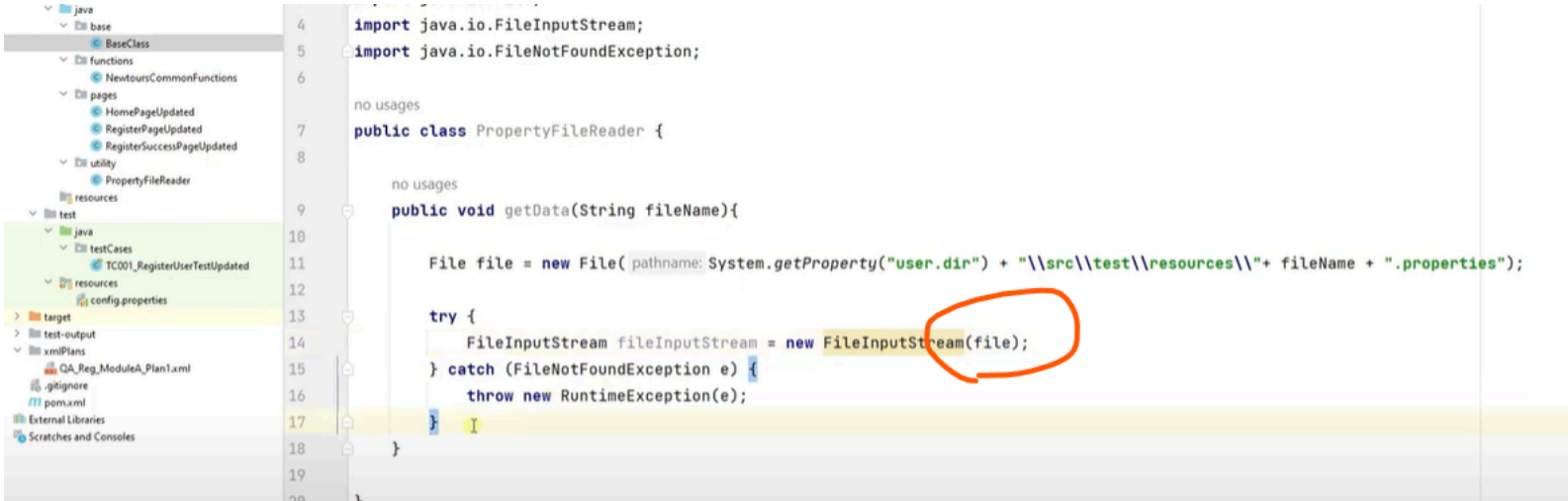
.properties keyana eka teya gananwa . nathta ara uda file name keyana thana .properties keyala danan wenawa neh .
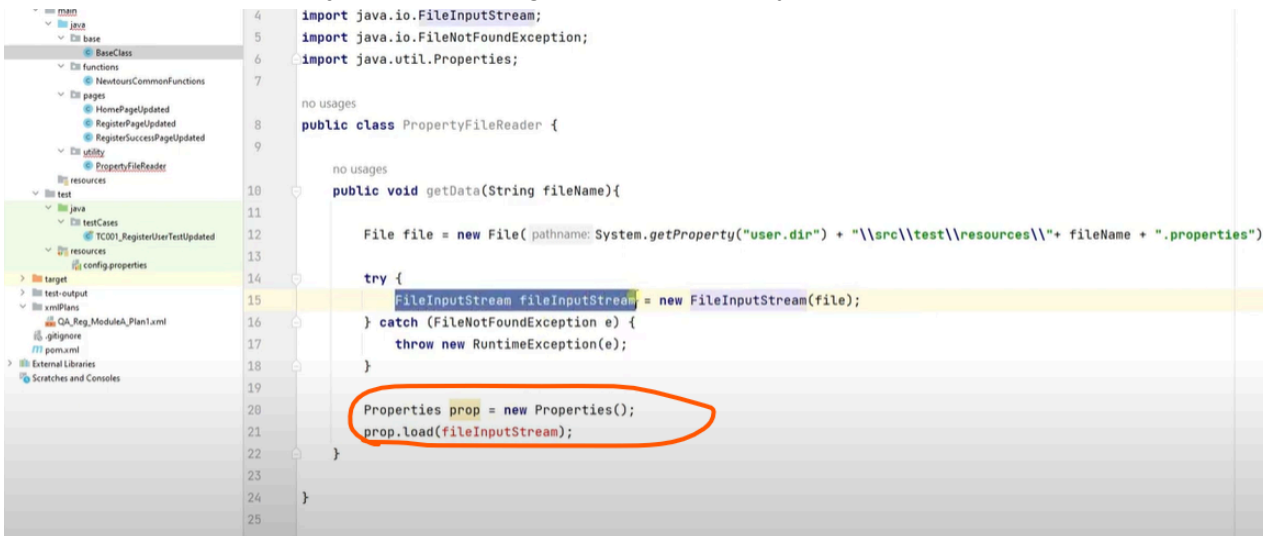
Dan fileinputstream eata dala file eka pass karanawa .

Eta passe api property file eka hadanna ona

Ekata properties walin object ekak hada ganna .dan load keyana eka call karanna.

file inputstream eka error ekak enawa. Mokada ela teyanne try{} athule neh

Eka nisa file inputstreme eka eliyata gananwa .

Mulin eka null eke teyanne . try eka athulata awama thamai meaningful wanne.

Eta passe load ekata error ekak enawa . ethana throw danan epa . method eka call karana hama thama danna wenawa .

Ekath try catch ekan danna .

```java
public class PropertyFileReader {

    public void getData(String fileName){

        File file = new File( pathname: System.getProperty("user.dir") + "\\src\\test\\resources\\"+ fileName + ".prope

        FileInputStream fileInputStream = null;

        try {
            fileInputStream = new FileInputStream(file);
        } catch (FileNotFoundException e) {
            e.printStackTrace();
        }

        Properties prop = new Properties();
        try {
            prop.load(fileInputStream);
        } catch (IOException e) {
            throw new RuntimeException(e);
        }

    }

}
```


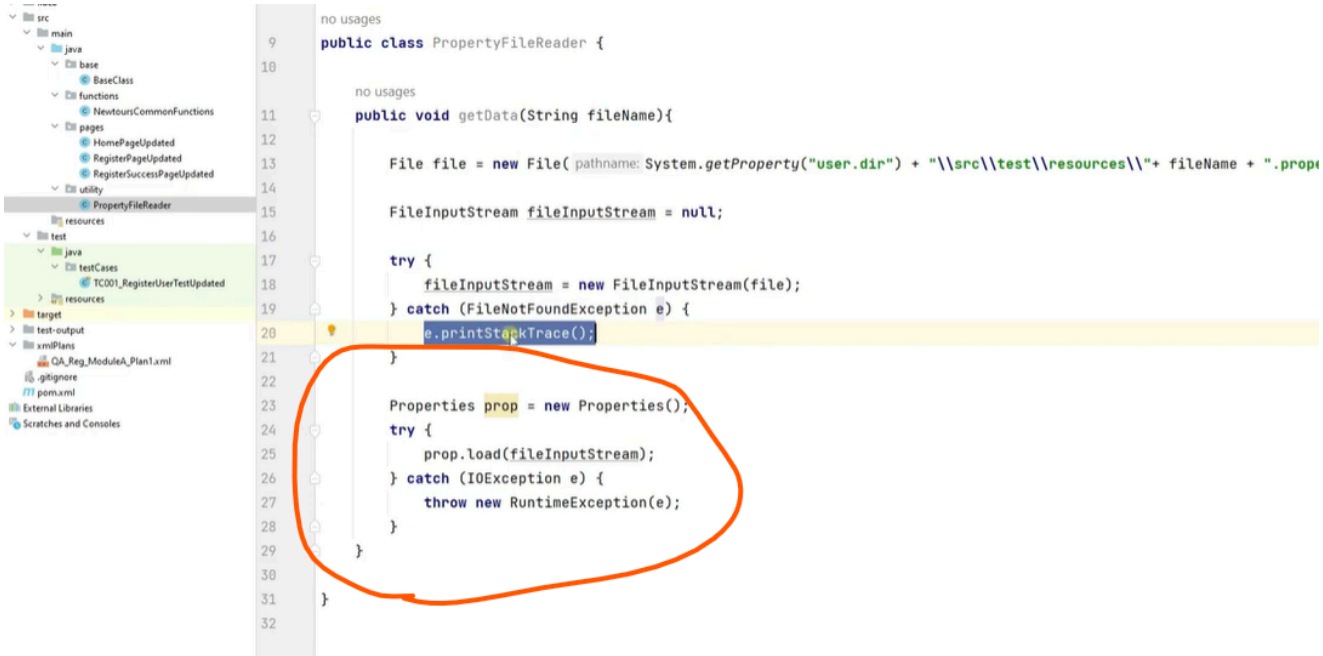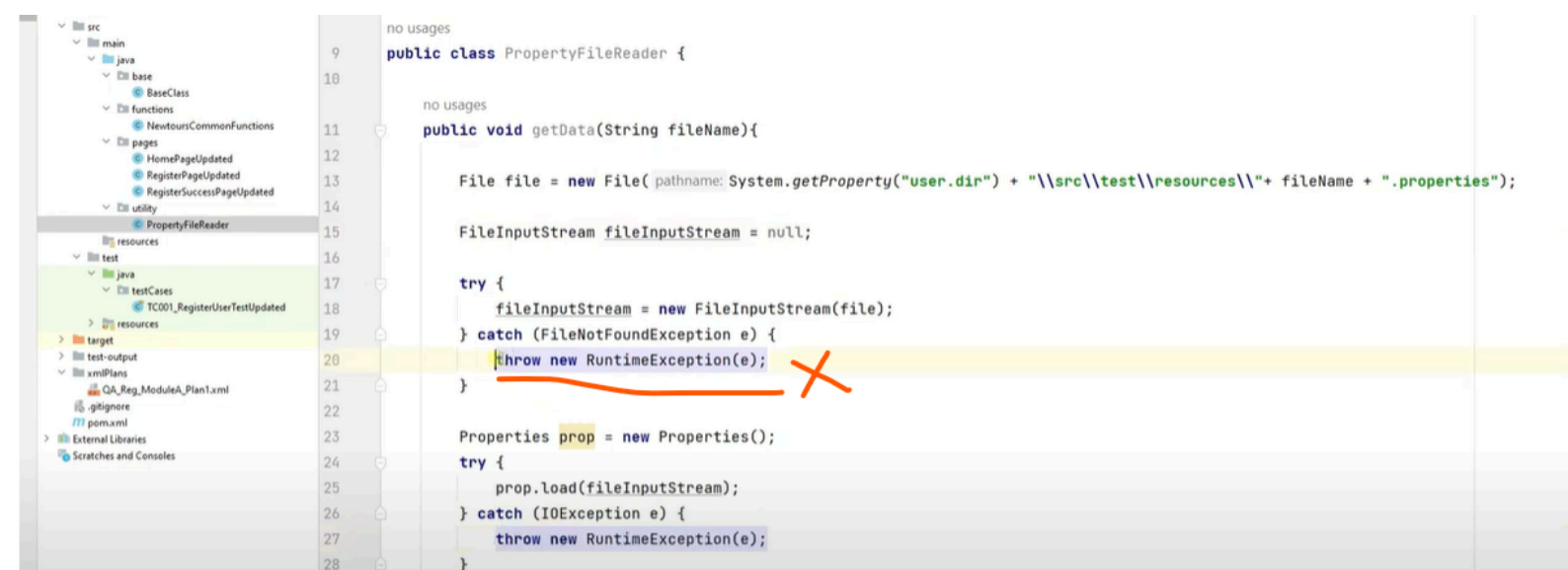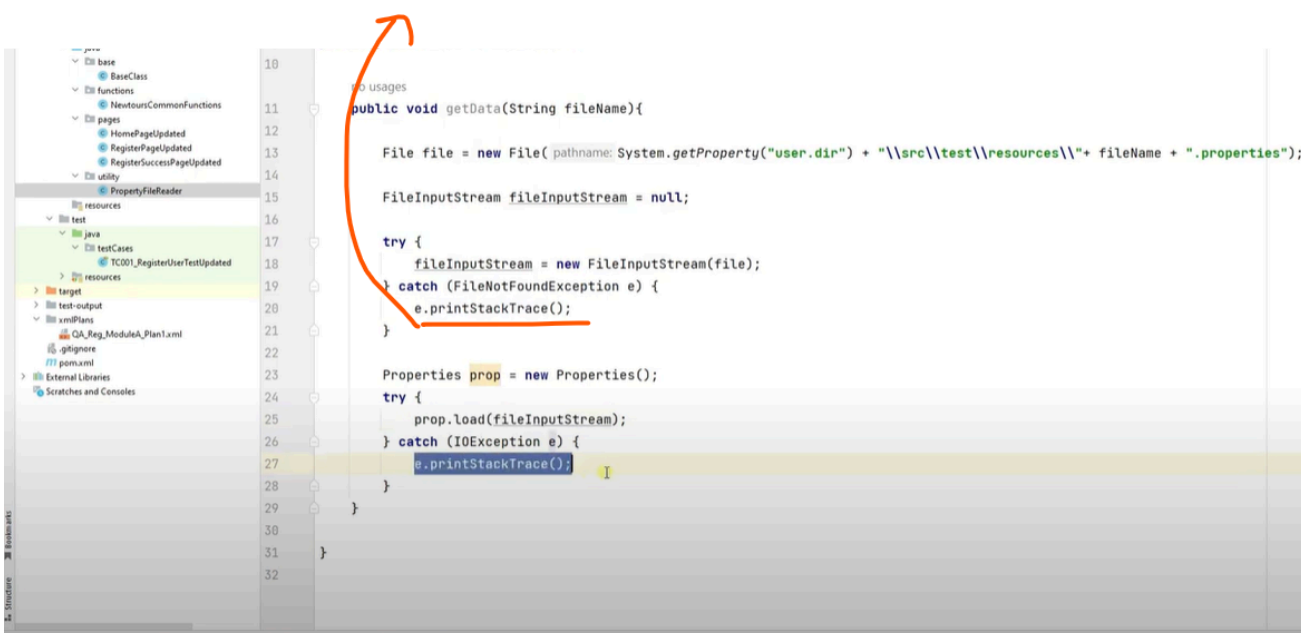
```java
public class PropertyFileReader {

    public void getData(String fileName){

        File file = new File( pathname: System.getProperty("user.dir") + "\\src\\test\\resources\\"+ fileName + ".properties");

        FileInputStream fileInputStream = null;

        try {
            fileInputStream = new FileInputStream(file);
        } catch (FileNotFoundException e) {
            throw new RuntimeException(e);
        }

        Properties prop = new Properties();
        try {
            prop.load(fileInputStream);
        } catch (IOException e) {
            throw new RuntimeException(e);
```

meka danne natuwa below danna. Ekan execution eka stop wanne na. Log ekak wadinawa error ekata reason eka dila error eka awama
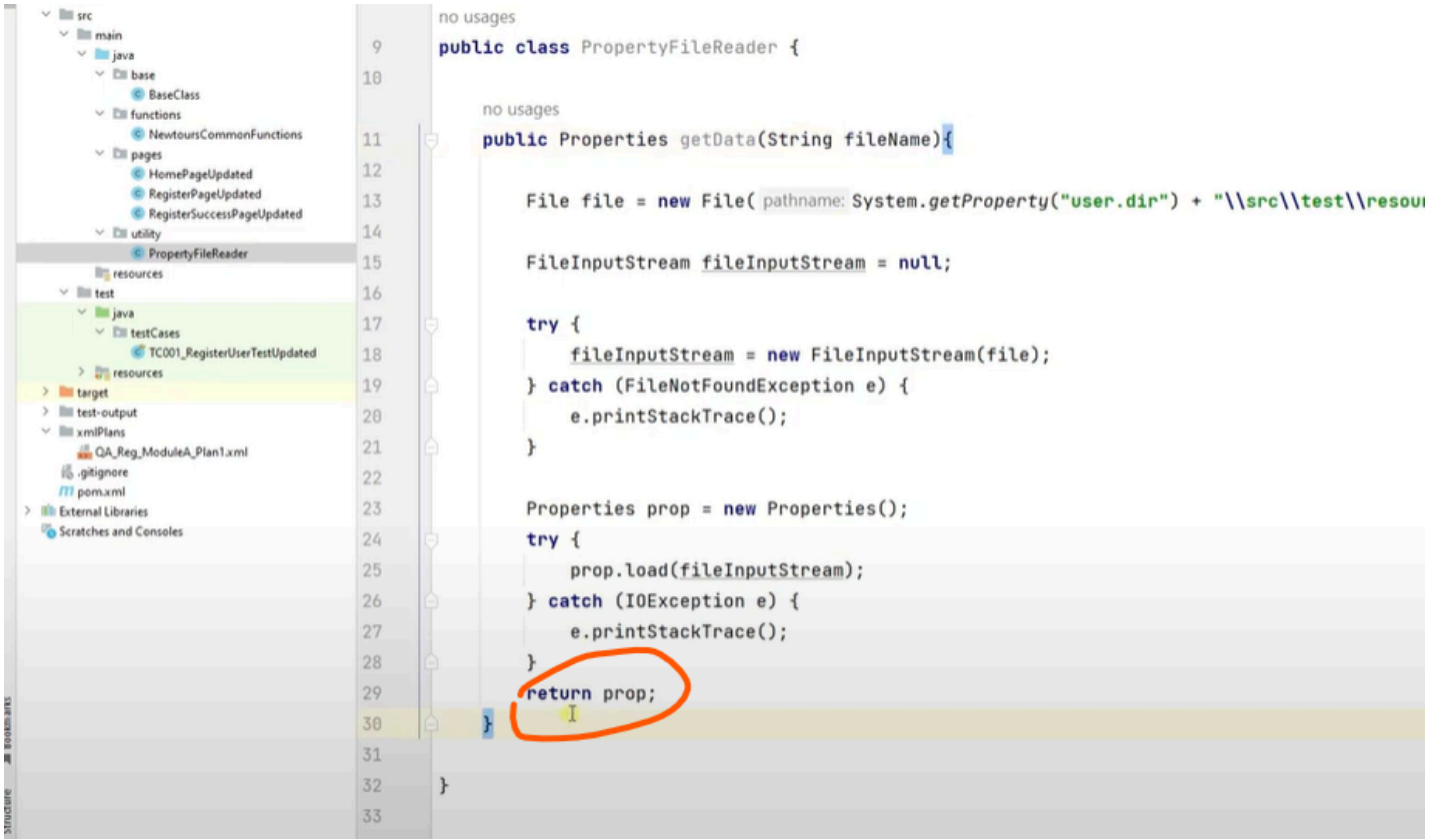

```java
    public void getData(String fileName){

        File file = new File( pathname: System.getProperty("user.dir") + "\\src\\test\\resources\\"+ fileName + ".properties");

        FileInputStream fileInputStream = null;

        try {
            fileInputStream = new FileInputStream(file);
        } catch (FileNotFoundException e) {
            e.printStackTrace();
        }

        Properties prop = new Properties();
        try {
            prop.load(fileInputStream);
        } catch (IOException e) {
            e.printStackTrace();
        }

    }

}
```

Ekan debug kara ganan puluwan. Maka hari widiya nawe . eka fail wanna teyanan ona.

Dan return karanan prop variable eka
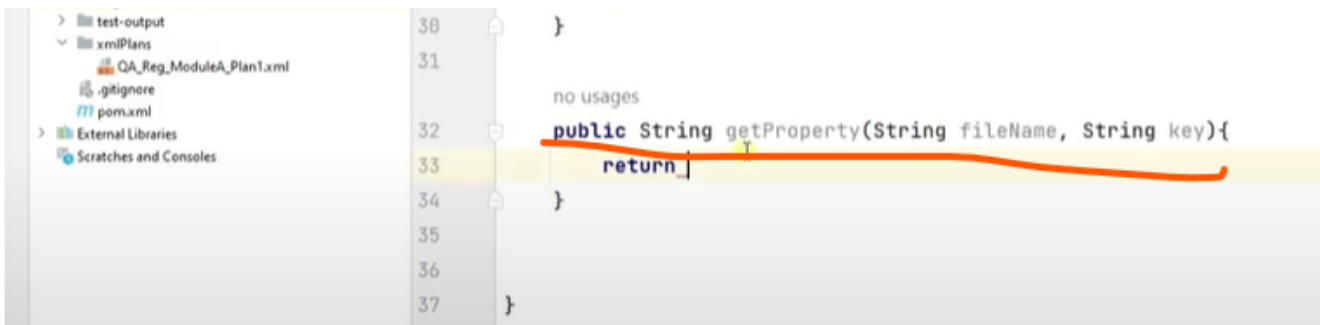
Error ekak enawa void ainkarala properties keyala danna keyanawa

File name eka wetharak nawe apita adala key ekath ona neh .key eka pass karaoth ne value eka enne.
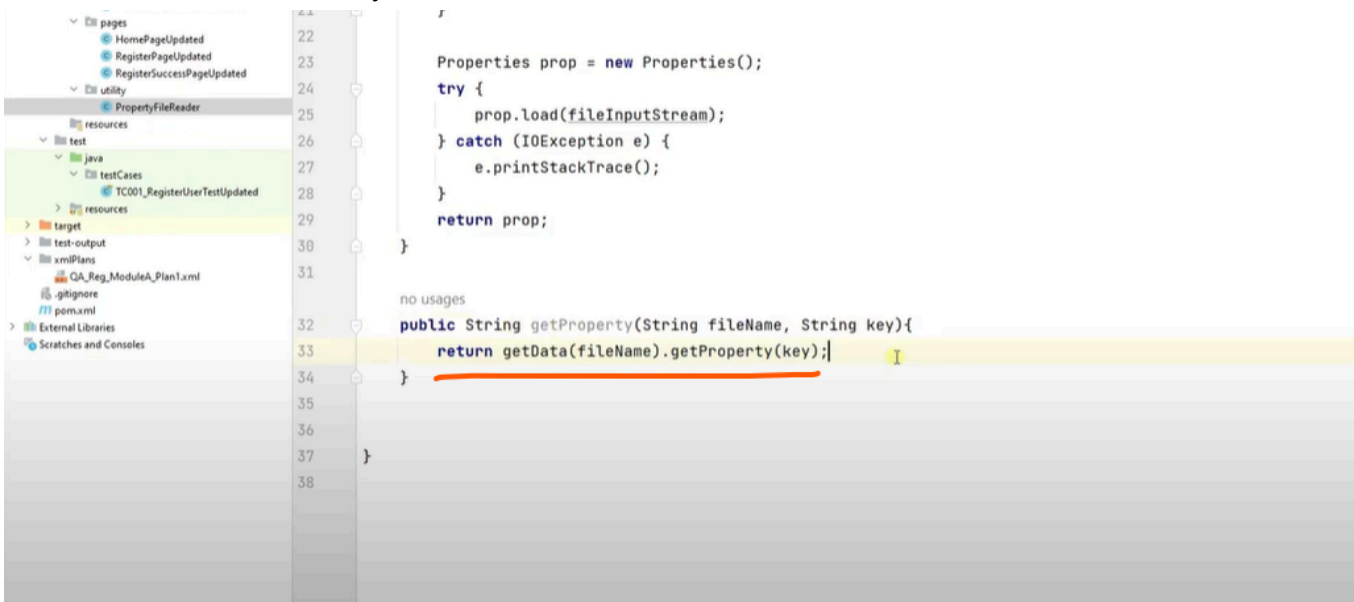
—-----------------
 Method ekak hadanna key eka danna puluwan widiyata .

Getdata keyann eka uda tebuna method ekak. Eka return type eka properties .eka nia eka teyana ona ekka ganan puluwan .

Return eke file name ekai key ekai danna ona

Below method eka private keyala da gannawa. Mokada meka accessible wanna ona na.
Mokada kata hari miss wela getData calla karana nawaththa. Me class eka athule wetharai .

Yata eka wetharak athi . mokada eka okkoma teyenawa.

```java
import java.io.File;
import java.io.FileInputStream;
import java.io.FileNotFoundException;
import java.io.IOException;
import java.util.Properties;

public class PropertyFileReader {

    private Properties getData(String fileName){

        File file = new File( pathname: System.getProperty("user.d:

        FileInputStream fileInputStream = null;

        try {
            fileInputStream = new FileInputStream(file);
        } catch (FileNotFoundException e) {
            e.printStackTrace();
        }

        Properties prop = new Properties();
        try {
            prop.load(fileInputStream);
        } catch (IOException e) {
            e.printStackTrace();
```

Hithanan mata tc eke password eka property file ekan ganan ona.

Retorces wala testdata.properties keyala .

Test method eka eliye call karala teyan pass karananth puluwan.
Object ekak haduwata eka athule teyena ewa enne na . ekata below wage string ekak dala ganan ona

```java
public class TC001_RegisterUserTestUpdated extends BaseClass {

    PropertyFileReader propertyFileReader =  new PropertyFileReader();

    String pass =propertyFileReader.
                    getProperty(String fileName, String key)  Strir
                    toString()                                  Strinc
                    equals(Object obj)                          boolear
                    hashCode()                                  int

    @Test
```

```java
import pages.*;
import utility.PropertyFileReader;

public class TC001_RegisterUserTestUpdated extends BaseClass {

    PropertyFileReader propertyFileReader =  new PropertyFileReader();

    String pass =propertyFileReader.getProperty( fileName: "testData", key: "pass");

    @Test
    public void TC001(){

        HomePageUpdated homePage = new HomePageUpdated(driver);
        homePage.selectRegisterMenu();

        RegisterPageUpdated registerPage = new RegisterPageUpdated(driver);
        registerPage.setFirstName("Mohamed");
        registerPage.setLastName("Hashir");
        registerPage.setEmail("hashirhasmy111@gmail.com");
        registerPage.selectCountry();
        registerPage.setUserName("Hhashir");
        registerPage.setPassword(pass);
        registerPage.setConfirmPassword(pass);
        registerPage.submit();
```
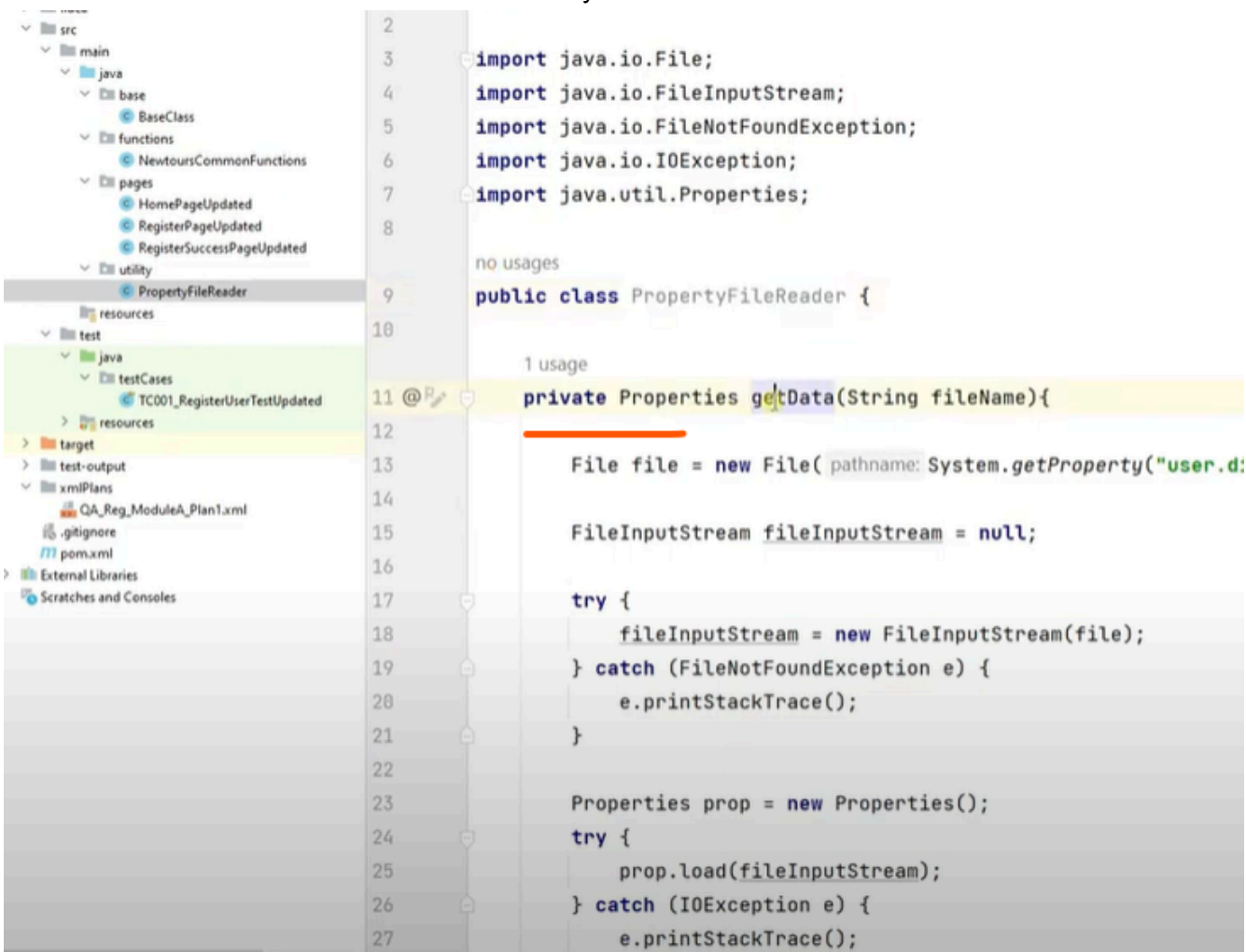
Me widiyata test case walata adala ewa testdata.properies wala hadanna puluwa. Module wise obama danna pluluwan.