

## CodeAnalysisTool

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# Chapter 1

## README

Alpha version of the Spint 1 software.

Contains the GUI implementation core of the application. GUI specification file is only local to this and shouldn't end up in the final application.

QUICK INSTALL:

1. python [setup.py](#)

Sami specific info:

I tried to make it as all as straightforward as possible for you with plenty of comments. I also added the .ui file if you wanted to download the qt designer and see the names of the widgets in more user friendly way, but the naming conventions should be pretty consistent. The whole functionality of the GUI is enclosed in [UserInterface](#) class you shouldn't really need anything else as far as I can tell. Most of it you won't have to touch you pretty much just need to bind the sonarqube button and maybe do something with the progress bar to let the user know something is going on.

Relevant class variables:

```
self.run_sonar_button self.sonarqube_progress_group self.sonarqube_progress_bar self.sonarqube_status self.↵
repo_list[<repo index>=""]>["tools"] –interface to the git class methods
```



## Chapter 2

# Namespace Index

### 2.1 Packages

Here are the packages with brief descriptions (if available):

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<a href="#">GitRepo</a>	13
<a href="#">main</a>	14
<a href="#">qtGUIsetup</a>	16
<a href="#">run</a>	16
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<a href="#">Sonar</a>	18
<a href="#">sonarAPI</a>	19
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## Chapter 3

# Hierarchical Index

### 3.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

sonarAPI.API . . . . .	21
Exception	
GitRepo.UrlException . . . . .	42
GitRepo.NoUrlSpecified . . . . .	27
GitRepo.WrongUrlFormat . . . . .	47
Sonar.SonarError . . . . .	32
GitRepo.GitRepo . . . . .	24
object	
qtGUIsetup.Ui_CodeAnalysisTool . . . . .	33
UserInterface.UserInterface . . . . .	43
Sonar.Sonar . . . . .	28





## Chapter 4

# Class Index

### 4.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

<a href="#">sonarAPI.API</a>	
Class for SonarQube web api public api includes: . . . . .	21
<a href="#">GitRepo.GitRepo</a>	
Class that provides all he neccessary funcitonality associated with git repos . . . . .	24
<a href="#">GitRepo.NoUrlSpecified</a>	27
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Sonar . . . . .	28
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<a href="#">GitRepo.UrlException</a>	42
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## Chapter 5

# File Index

### 5.1 File List

Here is a list of all files with brief descriptions:

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/home/daniel/TampereUniversity/SoftwareEngMethod/project/ <a href="#">GitRepo.py</a> . . . . .	49
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/home/daniel/TampereUniversity/SoftwareEngMethod/project/ <a href="#">setup.py</a> . . . . .	51
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/home/daniel/TampereUniversity/SoftwareEngMethod/project/ <a href="#">sonarAPI.py</a> . . . . .	52
/home/daniel/TampereUniversity/SoftwareEngMethod/project/ <a href="#">UserInterface.py</a> . . . . .	52



## Chapter 6

# Namespace Documentation

### 6.1 analysisParser Namespace Reference

#### Functions

- def [analysisParse](#) (df, csv\_name)  
*analysisParse*
- def [analysisParseFile](#) (json\_file, csv\_name='analysis.csv')  
*analysisParseFile*
- def [analysisParseList](#) (df\_list, csv\_name='analysis.csv')  
*analysisParseList*
- def [analysisParseJson](#) (json\_string, csv\_name='analysis.csv')  
*analysisParseJson*
- def [analysisParseGit](#) (git\_info, csv\_name='analysis\_git.csv')  
*analysisParseGit*

#### Variables

- [df](#) = load(f)

#### 6.1.1 Function Documentation

##### 6.1.1.1 analysisParse()

```
def analysisParser.analysisParse (  
    df,  
    csv_name )
```

[analysisParse](#)

Makes a CSV file from the pandas dataframe

**Parameters**

<i>df</i>	The pandas dataframe
<i>csv_name</i>	Filename for output

**6.1.1.2 analysisParseFile()**

```
def analysisParser.analysisParseFile (
    json_file,
    csv_name = 'analysis.csv' )
```

**analysisParseFile**

Makes json file into pandas dataframe and passes it to [analysisParse\(\)](#)

**Parameters**

<i>json_file</i>	The json as a .json file
<i>csv_name</i>	Filename for output

**6.1.1.3 analysisParseGit()**

```
def analysisParser.analysisParseGit (
    git_info,
    csv_name = 'analysis_git.csv' )
```

**analysisParseGit**

Takes the dict with git info and dumps it into .csv

**Parameters**

<i>git_info</i>	Dictionary with info
<i>csv_name</i>	Filename for output

**6.1.1.4 analysisParseJson()**

```
def analysisParser.analysisParseJson (
    json_string,
    csv_name = 'analysis.csv' )
```

**analysisParseJson**

Makes json string into pandas dataframe and passes it to [analysisParse\(\)](#)

## Parameters

<i>json_string</i>	Issues in JSON string
<i>csv_name</i>	Filename for output

## 6.1.1.5 analysisParseList()

```
def analysisParser.analysisParseList (
    df_list,
    csv_name = 'analysis.csv' )
```

analysisParseList

Makes list into pandas dataframe and passes it to [analysisParse\(\)](#)

## Parameters

<i>df_list</i>	List with issues
<i>csv_name</i>	Filename for output

## 6.1.2 Variable Documentation

## 6.1.2.1 df

```
analysisParser.df = load(f)
```

## 6.2 GitRepo Namespace Reference

## Classes

- class [GitRepo](#)  
*Class that provides all the necessary functionality associated with git repos.*
- class [NoUrlSpecified](#)
- class [UrlException](#)
- class [WrongUrlFormat](#)

## Variables

- [curr\\_work\\_dir](#) = `os.path.join(os.getcwd(), 'tmpRepo')`
- list [com\\_inf](#) = `[]`
- [repo\\_instance](#) = `GitRepo(curr_work_dir)`

## 6.2.1 Variable Documentation

### 6.2.1.1 com\_inf

```
list GitRepo.com_inf = []
```

### 6.2.1.2 curr\_work\_dir

```
GitRepo.curr_work_dir = os.path.join(os.getcwd(), 'tmpRepo')
```

### 6.2.1.3 repo\_instance

```
GitRepo.repo_instance = GitRepo(curr_work_dir)
```

## 6.3 main Namespace Reference

### Functions

- def [wait](#) (message, predicate, sleeptime=2, timeout=-1)  
*Wait for a predicate to be true.*
- def [main](#) (args)

### Variables

- [ap](#) = argparse.ArgumentParser()
- [action](#)
- [help](#)
- [metavar](#)
- [default](#)
- [nargs](#)
- [args](#) = ap.parse\_args()
- [file](#)

### 6.3.1 Function Documentation



### 6.3.1.1 main()

```
def main.main (
    args )
```

### 6.3.1.2 wait()

```
def main.wait (
    message,
    predicate,
    sleeptime = 2,
    timeout = -1 )
```

Wait for a predicate to be true.

#### Parameters

<i>message</i>	Message to show
<i>predicate</i>	Function that returns True, when the wait is over
<i>sleeptime</i>	Time in seconds to sleep between calls to predicate
<i>timeout</i>	Timeout in minutes ( $\leq 0$ is infinite), raises TimeoutException

## 6.3.2 Variable Documentation

### 6.3.2.1 action

```
main.action
```

### 6.3.2.2 ap

```
main.ap = argparse.ArgumentParser()
```

### 6.3.2.3 args

```
main.args = ap.parse_args()
```

#### 6.3.2.4 default

`main.default`

#### 6.3.2.5 file

`main.file`

#### 6.3.2.6 help

`main.help`

#### 6.3.2.7 metavar

`main.metavar`

#### 6.3.2.8 nargs

`main.nargs`

## 6.4 qtGUIsetup Namespace Reference

### Classes

- class [Ui\\_CodeAnalysisTool](#)

## 6.5 run Namespace Reference

### Variables

- `app` = `QtWidgets.QApplication(sys.argv)`
- `main_window` = `QtWidgets.QMainWindow()`
- `ui` = `UserInterface(main_window)`

### 6.5.1 Variable Documentation

#### 6.5.1.1 app

```
run.app = QtWidgets.QApplication(sys.argv)
```

#### 6.5.1.2 main\_window

```
run.main_window = QtWidgets.QMainWindow()
```

#### 6.5.1.3 ui

```
run.ui = UserInterface(main_window)
```

## 6.6 setup Namespace Reference

### Functions

- def `installRequirements` (`req_file`="requirements.txt")  
*Will read file.*

### Variables

- string `req_file` = ""

### 6.6.1 Function Documentation

#### 6.6.1.1 installRequirements()

```
def setup.installRequirements (  
    req_file = "requirements.txt" )
```

Will read file.

## 6.6.2 Variable Documentation

### 6.6.2.1 req\_file

```
setup.req_file = ''
```

## 6.7 Sonar Namespace Reference

### Classes

- class [Sonar](#)  
[Sonar.](#)
- class [SonarError](#)

### Variables

- tuple [auth\\_test](#) = ('admin', 'admin')
- string [url\\_test](#) = '127.0.0.1'
- int [port\\_test](#) = 9000
- [sonarObject](#) = [Sonar\(\)](#)

## 6.7.1 Variable Documentation

### 6.7.1.1 auth\_test

```
tuple Sonar.auth_test = ('admin', 'admin')
```

### 6.7.1.2 port\_test

```
int Sonar.port_test = 9000
```

### 6.7.1.3 sonarObject

```
Sonar.sonarObject = Sonar\(\)
```

#### 6.7.1.4 url\_test

```
string Sonar.url_test = '127.0.0.1'
```

## 6.8 sonarAPI Namespace Reference

### Classes

- class [API](#)

*Class for SonarQube web api public api includes:*

### Variables

- [api](#) = [API](#)()

#### 6.8.1 Variable Documentation

##### 6.8.1.1 api

```
sonarAPI.api = API()
```

## 6.9 UserInterface Namespace Reference

### Classes

- class [UserInterface](#)



## Chapter 7

# Class Documentation

### 7.1 sonarAPI.API Class Reference

Class for SonarQube web api public api includes:

#### Public Member Functions

- def `__init__` (self, `url`='http://127.0.0.1:9000', `auth`=('admin', 'admin'))
- def `pagesize` (self)
- def `pagesize` (self, val)
- def `get` (self, path, key, parser, params=None)
- def `delete_project` (self, project\_key)  
*Delete existing project.*
- def `projects` (self)  
*search project keys for all analysed projects*
- def `issues` (self, project=None)  
*search issues for projects*

#### Public Attributes

- `url`
- `auth`
- `ps`

#### 7.1.1 Detailed Description

Class for SonarQube web api public api includes:

- issues
- projects
- delete\_project

## 7.1.2 Constructor & Destructor Documentation

### 7.1.2.1 `__init__()`

```
def sonarAPI.API.__init__ (
    self,
    url = 'http://127.0.0.1:9000',
    auth = ('admin', 'admin') )
```

#### Parameters

<i>url</i>	Url of the running SonarQube instance
<i>auth</i>	Authorisation for the SonarQube instance

## 7.1.3 Member Function Documentation

### 7.1.3.1 `delete_project()`

```
def sonarAPI.API.delete_project (
    self,
    project_key )
```

Delete existing project.

#### Parameters

<i>project_key</i>	Project to delete
--------------------	-------------------

#### Returns

whether the response was ok

### 7.1.3.2 `get()`

```
def sonarAPI.API.get (
    self,
    path,
    key,
    parser,
    params = None )
```



### 7.1.3.3 issues()

```
def sonarAPI.API.issues (
    self,
    project = None )
```

search issues for projects

#### Parameters

<i>project</i>	The project key for which issues are wanted
----------------	---

#### Returns

Generator of issues

### 7.1.3.4 pagesize() [1/2]

```
def sonarAPI.API.pagesize (
    self )
```

### 7.1.3.5 pagesize() [2/2]

```
def sonarAPI.API.pagesize (
    self,
    val )
```

### 7.1.3.6 projects()

```
def sonarAPI.API.projects (
    self )
```

search project keys for all analysed projects

#### Returns

Generator of project keys as string

#### Parameters

<i>auth</i>	Authorisation for the SonarQube instance
-------------	--

## 7.1.4 Member Data Documentation

### 7.1.4.1 auth

`sonarAPI.API.auth`

### 7.1.4.2 ps

`sonarAPI.API.ps`

### 7.1.4.3 url

`sonarAPI.API.url`

The documentation for this class was generated from the following file:

- `/home/daniel/TampereUniversity/SoftwareEngMethod/project/sonarAPI.py`

## 7.2 GitRepo.GitRepo Class Reference

Class that provides all the necessary functionality associated with git repos.

### Public Member Functions

- `def __init__ (self, work\_dir=curr\_work\_dir)`  
*creates empty repository, pulled repositories will be stored here*
- `def pullRepoContents (self, remote_url=None, username=None, password=None)`  
*Downloads the repo contents.*
- `def getCommitData (self)`  
*Returns the dictionary with all the necessary information.*
- `def changeBranch (self, branch)`
- `def getBranches (self)`  
*Returns the list of all branches in the repo.*

### Public Attributes

- [work\\_dir](#)
- [repo\\_url](#)
- [filled\\_repo](#)
- [commit\\_handle](#)
- [branches](#)

### 7.2.1 Detailed Description

Class that provides all the necessary functionality associated with git repos.

### 7.2.2 Constructor & Destructor Documentation

#### 7.2.2.1 `__init__()`

```
def GitRepo.GitRepo.__init__ (
    self,
    work_dir = curr_work_dir )
```

creates empty repository, pulled repositories will be stored here

### 7.2.3 Member Function Documentation

#### 7.2.3.1 `changeBranch()`

```
def GitRepo.GitRepo.changeBranch (
    self,
    branch )
```

##### Parameters

in	<i>branch</i>	Name of the branch that you want to switch to
----	---------------	---

##### See also

[getBranches\(\)](#) method

#### 7.2.3.2 `getBranches()`

```
def GitRepo.GitRepo.getBranches (
    self )
```

Returns the list of all branches in the repo.

### 7.2.3.3 getCommitData()

```
def GitRepo.GitRepo.getCommitData (
    self )
```

Returns the dictionary with all the necessary information.

#### Note

Merge allways returns empty list because I don't know what else to do there

### 7.2.3.4 pullRepoContents()

```
def GitRepo.GitRepo.pullRepoContents (
    self,
    remote_url = None,
    username = None,
    password = None )
```

Downloads the repo contents.

#### Parameters

<i>remote_url</i>	Reporsitory url (by default this is None)
<i>username</i>	Needed in case of pass protected repo
<i>password</i>	Needed in case of pass protected repo

#### Returns

True if repo pulled successfully, False otherwise

The method will check if the repository is in valid format and create workRepo with contents of the user specified directory. If the repo is password protected it will request user input (password can also be specified as input arg).

## 7.2.4 Member Data Documentation

### 7.2.4.1 branches

```
GitRepo.GitRepo.branches
```

#### 7.2.4.2 commit\_handle

`GitRepo.GitRepo.commit_handle`

#### 7.2.4.3 filled\_repo

`GitRepo.GitRepo.filled_repo`

#### 7.2.4.4 repo\_url

`GitRepo.GitRepo.repo_url`

#### 7.2.4.5 work\_dir

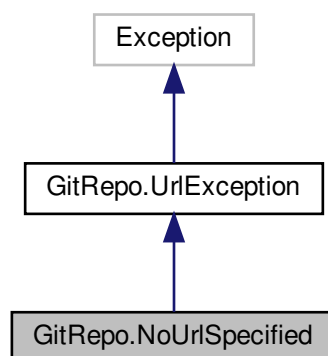
`GitRepo.GitRepo.work_dir`

The documentation for this class was generated from the following file:

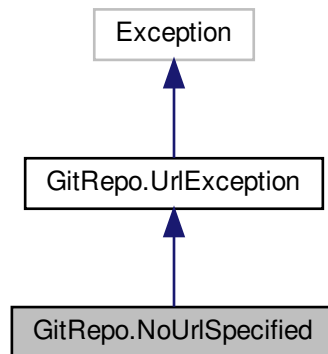
- `/home/daniel/TampereUniversity/SoftwareEngMethod/project/GitRepo.py`

## 7.3 GitRepo.NoUrlSpecified Class Reference

Inheritance diagram for GitRepo.NoUrlSpecified:



Collaboration diagram for GitRepo.NoUrlSpecified:



The documentation for this class was generated from the following file:

- [/home/daniel/TampereUniversity/SoftwareEngMethod/project/GitRepo.py](#)

## 7.4 Sonar.Sonar Class Reference

[Sonar.](#)

### Public Member Functions

- `def __init__ (self, sonarQubeImg='sonarqube', sonarScannerImg='vesakoskela/sonar-scanner-maven', host='127.0.0.1', port=9000, auth=('admin', 'admin'))`  
*The Constructor.*
- `def startSonarQube (self)`  
*startSonarQube*
- `def stopSonarQube (self)`  
*stopSonarQube*
- `def isSonarQubeRunning (self)`  
*isSonarQubeRunning*
- `def runSonarScanner (self, directory, params)`  
*runSonarScanner*

### Public Attributes

- [sonarQubeImg](#)
- [sonarScannerImg](#)
- [dockerClient](#)
- [sonarQubeContainer](#)
- [sonarQubeRunning](#)
- [sonarScannerContainer](#)
- [host](#)
- [port](#)
- [url](#)
- [auth](#)

### 7.4.1 Detailed Description

[Sonar.](#)

class for handling SonarQube and SonarScanner for Maven

### 7.4.2 Constructor & Destructor Documentation

#### 7.4.2.1 \_\_init\_\_()

```
def Sonar.Sonar.__init__ (
    self,
    sonarQubeImg = 'sonarqube',
    sonarScannerImg = 'vesakoskela/sonar-scanner-maven',
    host = '127.0.0.1',
    port = 9000,
    auth = ('admin', 'admin') )
```

The Constructor.

#### Parameters

<i>sonarQubeImg</i>	is the Docker image for SonarQube server
<i>sonarScannerImg</i>	is the Docker image for sonarScanner
<i>host</i>	is ip address for the SonarQube server
<i>port</i>	is port number for SonarQube server is login credentials for SonarQube server

### 7.4.3 Member Function Documentation

#### 7.4.3.1 isSonarQubeRunning()

```
def Sonar.Sonar.isSonarQubeRunning (
    self )
```

isSonarQubeRunning

Method for checking if SonarQube server is up

#### Returns

True only when SonarQube server HTTP response is 200 This method is for purpose of waiting until SonarQube server is up and running.

#### 7.4.3.2 runSonarScanner()

```
def Sonar.Sonar.runSonarScanner (
    self,
    directory,
    params )
```

runSonarScanner

Method for running SonarScanner for Maven.

##### Parameters

<i>directory</i>	is the directory of the Java project
<i>*params</i>	is maven commands which are executed. 'mvn' is already included. Eg. if you want to run "mvn clean verify sonar:sonar", call runSonarScanner(directory, "clean", "verify", "sonar:sonar")

##### Returns

[SonarError](#) if errors occurred.

#### 7.4.3.3 startSonarQube()

```
def Sonar.Sonar.startSonarQube (
    self )
```

startSonarQube

Method for starting sonarQube docker container

##### Returns

[SonarError](#) if exceptions occurred SonarQube server is not necessarily responding after calling this method returns. Use isSonarQubeRunning to check if it's up.

#### 7.4.3.4 stopSonarQube()

```
def Sonar.Sonar.stopSonarQube (
    self )
```

stopSonarQube

Method for stopping SonarQube

##### Returns

[SonarError](#) if errors occurred Stops SonarQube docker container and removes it. SonarQube server docker container should be still stopped and removed even if errors are returned.



## 7.4.4 Member Data Documentation

### 7.4.4.1 auth

`Sonar.Sonar.auth`

### 7.4.4.2 dockerClient

`Sonar.Sonar.dockerClient`

### 7.4.4.3 host

`Sonar.Sonar.host`

### 7.4.4.4 port

`Sonar.Sonar.port`

### 7.4.4.5 sonarQubeContainer

`Sonar.Sonar.sonarQubeContainer`

### 7.4.4.6 sonarQubeImg

`Sonar.Sonar.sonarQubeImg`

### 7.4.4.7 sonarQubeRunning

`Sonar.Sonar.sonarQubeRunning`

#### 7.4.4.8 sonarScannerContainer

`Sonar.Sonar.sonarScannerContainer`

#### 7.4.4.9 sonarScannerImg

`Sonar.Sonar.sonarScannerImg`

#### 7.4.4.10 url

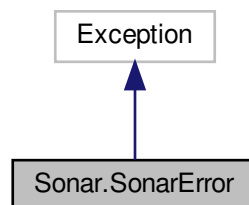
`Sonar.Sonar.url`

The documentation for this class was generated from the following file:

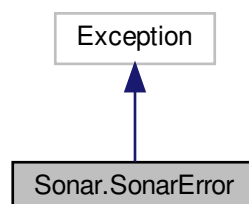
- `/home/daniel/TampereUniversity/SoftwareEngMethod/project/Sonar.py`

## 7.5 Sonar.SonarError Class Reference

Inheritance diagram for Sonar.SonarError:



Collaboration diagram for Sonar.SonarError:



## Public Member Functions

- `def __init__ (self, message="SonarError")`

## Public Attributes

- `message`

### 7.5.1 Constructor & Destructor Documentation

#### 7.5.1.1 \_\_init\_\_()

```
def Sonar.SonarError.__init__ (
    self,
    message = "SonarError" )
```

### 7.5.2 Member Data Documentation

#### 7.5.2.1 message

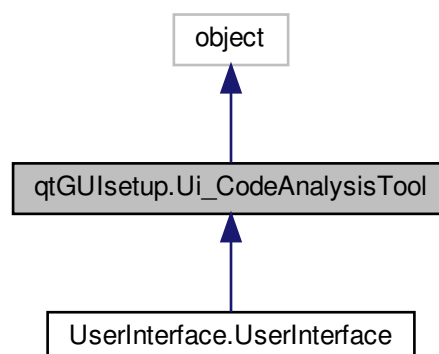
```
Sonar.SonarError.message
```

The documentation for this class was generated from the following file:

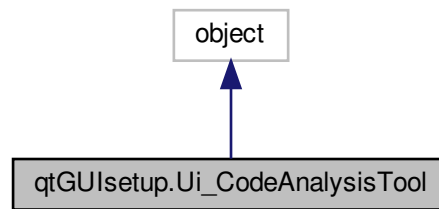
- `/home/daniel/TampereUniversity/SoftwareEngMethod/project/Sonar.py`

## 7.6 qtGUIsetup.Ui\_CodeAnalysisTool Class Reference

Inheritance diagram for qtGUIsetup.Ui\_CodeAnalysisTool:



Collaboration diagram for `qtGUIsetup.Ui_CodeAnalysisTool`:



### Public Member Functions

- def [setUpUi](#) (self, CodeAnalysisTool)
- def [retranslateUi](#) (self, CodeAnalysisTool)

### Public Attributes

- [centralwidget](#)
- [repo\\_screen\\_but](#)
- [line](#)
- [sonar\\_screen\\_but](#)
- [line\\_2](#)
- [cs\\_screen\\_but](#)
- [pmd\\_screen\\_but](#)
- [line\\_3](#)
- [line\\_4](#)
- [settings\\_screen\\_but](#)
- [stackedWidget](#)
- [page](#)
- [git\\_repo\\_input](#)
- [git\\_repo\\_input\\_submit](#)
- [label](#)
- [branch\\_selector](#)
- [label\\_2](#)
- [line\\_7](#)
- [repo\\_info](#)
- [page\\_2](#)
- [run\\_sonar\\_button](#)
- [sonarqube\\_progress\\_group](#)
- [sonarqube\\_progress\\_bar](#)
- [sonarqube\\_status](#)
- [page\\_3](#)
- [run\\_cs\\_button](#)
- [cs\\_progress\\_group](#)
- [cs\\_progress\\_bar](#)
- [cs\\_status](#)

- [page\\_4](#)
- [run\\_pmd\\_button](#)
- [pmd\\_progress\\_group](#)
- [pmd\\_progress\\_bar](#)
- [pmd\\_status](#)
- [page\\_5](#)
- [sonar\\_save\\_dir\\_input](#)
- [sonar\\_save\\_dirsel](#)
- [cs\\_save\\_dir\\_input](#)
- [cs\\_save\\_dirsel](#)
- [pmd\\_save\\_dir\\_input](#)
- [pmd\\_save\\_dirsel](#)
- [repo\\_save\\_enable\\_but](#)
- [repo\\_save\\_dir](#)
- [repo\\_save\\_dirsel](#)
- [tabWidget](#)
- [repo1\\_tab](#)
- [repo2\\_tab](#)
- [repo3\\_tab](#)
- [repo4\\_tab](#)
- [repo5\\_tab](#)

## 7.6.1 Member Function Documentation

### 7.6.1.1 retranslateUi()

```
def qtGUISetup.Ui_CodeAnalysisTool.retranslateUi (  
    self,  
    CodeAnalysisTool )
```

### 7.6.1.2 setupUi()

```
def qtGUISetup.Ui_CodeAnalysisTool.setupUi (  
    self,  
    CodeAnalysisTool )
```

## 7.6.2 Member Data Documentation

### 7.6.2.1 branch\_selector

```
qtGUISetup.Ui_CodeAnalysisTool.branch_selector
```

#### 7.6.2.2 centralwidget

qtGUIsetup.Ui\_CodeAnalysisTool.centralwidget

#### 7.6.2.3 cs\_progress\_bar

qtGUIsetup.Ui\_CodeAnalysisTool.cs\_progress\_bar

#### 7.6.2.4 cs\_progress\_group

qtGUIsetup.Ui\_CodeAnalysisTool.cs\_progress\_group

#### 7.6.2.5 cs\_save\_dir\_input

qtGUIsetup.Ui\_CodeAnalysisTool.cs\_save\_dir\_input

#### 7.6.2.6 cs\_save\_dirsel

qtGUIsetup.Ui\_CodeAnalysisTool.cs\_save\_dirsel

#### 7.6.2.7 cs\_screen\_but

qtGUIsetup.Ui\_CodeAnalysisTool.cs\_screen\_but

#### 7.6.2.8 cs\_status

qtGUIsetup.Ui\_CodeAnalysisTool.cs\_status

#### 7.6.2.9 git\_repo\_input

qtGUIsetup.Ui\_CodeAnalysisTool.git\_repo\_input

#### 7.6.2.10 git\_repo\_input\_submit

qtGUIsetup.Ui\_CodeAnalysisTool.git\_repo\_input\_submit

#### 7.6.2.11 label

qtGUIsetup.Ui\_CodeAnalysisTool.label

#### 7.6.2.12 label\_2

qtGUIsetup.Ui\_CodeAnalysisTool.label\_2

#### 7.6.2.13 line

qtGUIsetup.Ui\_CodeAnalysisTool.line

#### 7.6.2.14 line\_2

qtGUIsetup.Ui\_CodeAnalysisTool.line\_2

#### 7.6.2.15 line\_3

qtGUIsetup.Ui\_CodeAnalysisTool.line\_3

#### 7.6.2.16 line\_4

qtGUIsetup.Ui\_CodeAnalysisTool.line\_4

#### 7.6.2.17 line\_7

qtGUIsetup.Ui\_CodeAnalysisTool.line\_7

**7.6.2.18 page**

`qtGUIsetup.Ui_CodeAnalysisTool.page`

**7.6.2.19 page\_2**

`qtGUIsetup.Ui_CodeAnalysisTool.page_2`

**7.6.2.20 page\_3**

`qtGUIsetup.Ui_CodeAnalysisTool.page_3`

**7.6.2.21 page\_4**

`qtGUIsetup.Ui_CodeAnalysisTool.page_4`

**7.6.2.22 page\_5**

`qtGUIsetup.Ui_CodeAnalysisTool.page_5`

**7.6.2.23 pmd\_progress\_bar**

`qtGUIsetup.Ui_CodeAnalysisTool.pmd_progress_bar`

**7.6.2.24 pmd\_progress\_group**

`qtGUIsetup.Ui_CodeAnalysisTool.pmd_progress_group`

**7.6.2.25 pmd\_save\_dir\_input**

`qtGUIsetup.Ui_CodeAnalysisTool.pmd_save_dir_input`



**7.6.2.26 pmd\_save\_dirsel**

qtGUIsetup.Ui\_CodeAnalysisTool.pmd\_save\_dirsel

**7.6.2.27 pmd\_screen\_but**

qtGUIsetup.Ui\_CodeAnalysisTool.pmd\_screen\_but

**7.6.2.28 pmd\_status**

qtGUIsetup.Ui\_CodeAnalysisTool.pmd\_status

**7.6.2.29 repo1\_tab**

qtGUIsetup.Ui\_CodeAnalysisTool.repo1\_tab

**7.6.2.30 repo2\_tab**

qtGUIsetup.Ui\_CodeAnalysisTool.repo2\_tab

**7.6.2.31 repo3\_tab**

qtGUIsetup.Ui\_CodeAnalysisTool.repo3\_tab

**7.6.2.32 repo4\_tab**

qtGUIsetup.Ui\_CodeAnalysisTool.repo4\_tab

**7.6.2.33 repo5\_tab**

qtGUIsetup.Ui\_CodeAnalysisTool.repo5\_tab

**7.6.2.34 repo\_info**

`qtGUISetup.Ui_CodeAnalysisTool.repo_info`

**7.6.2.35 repo\_save\_dir**

`qtGUISetup.Ui_CodeAnalysisTool.repo_save_dir`

**7.6.2.36 repo\_save\_dirsel**

`qtGUISetup.Ui_CodeAnalysisTool.repo_save_dirsel`

**7.6.2.37 repo\_save\_enable\_but**

`qtGUISetup.Ui_CodeAnalysisTool.repo_save_enable_but`

**7.6.2.38 repo\_screen\_but**

`qtGUISetup.Ui_CodeAnalysisTool.repo_screen_but`

**7.6.2.39 run\_cs\_button**

`qtGUISetup.Ui_CodeAnalysisTool.run_cs_button`

**7.6.2.40 run\_pmd\_button**

`qtGUISetup.Ui_CodeAnalysisTool.run_pmd_button`

**7.6.2.41 run\_sonar\_button**

`qtGUISetup.Ui_CodeAnalysisTool.run_sonar_button`

#### 7.6.2.42 settings\_screen\_but

qtGUISetup.Ui\_CodeAnalysisTool.settings\_screen\_but

#### 7.6.2.43 sonar\_save\_dir\_input

qtGUISetup.Ui\_CodeAnalysisTool.sonar\_save\_dir\_input

#### 7.6.2.44 sonar\_save\_dirsel

qtGUISetup.Ui\_CodeAnalysisTool.sonar\_save\_dirsel

#### 7.6.2.45 sonar\_screen\_but

qtGUISetup.Ui\_CodeAnalysisTool.sonar\_screen\_but

#### 7.6.2.46 sonarqube\_progress\_bar

qtGUISetup.Ui\_CodeAnalysisTool.sonarqube\_progress\_bar

#### 7.6.2.47 sonarqube\_progress\_group

qtGUISetup.Ui\_CodeAnalysisTool.sonarqube\_progress\_group

#### 7.6.2.48 sonarqube\_status

qtGUISetup.Ui\_CodeAnalysisTool.sonarqube\_status

#### 7.6.2.49 stackedWidget

qtGUISetup.Ui\_CodeAnalysisTool.stackedWidget

### 7.6.2.50 tabWidget

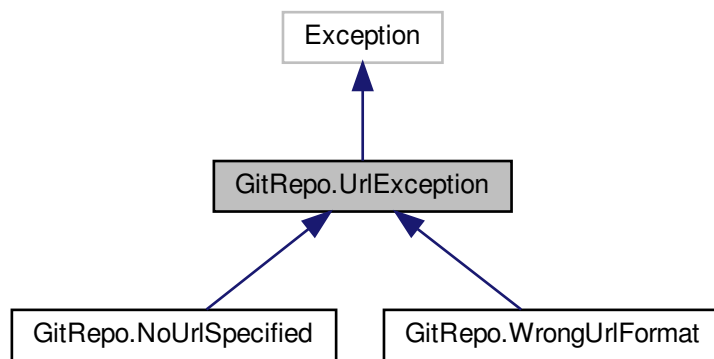
`qtGUIsetup.Ui_CodeAnalysisTool.tabWidget`

The documentation for this class was generated from the following file:

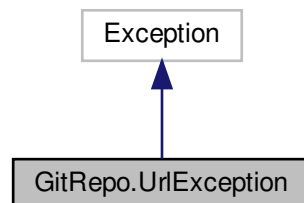
- [/home/daniel/TampereUniversity/SoftwareEngMethod/project/qtGUIsetup.py](#)

## 7.7 GitRepo.UrlException Class Reference

Inheritance diagram for `GitRepo.UrlException`:



Collaboration diagram for `GitRepo.UrlException`:

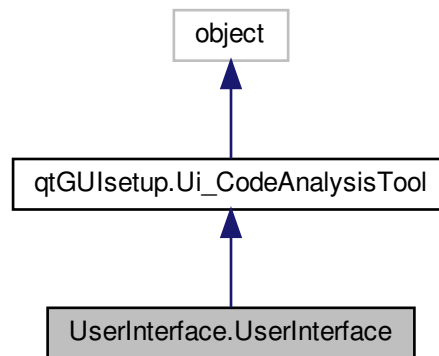


The documentation for this class was generated from the following file:

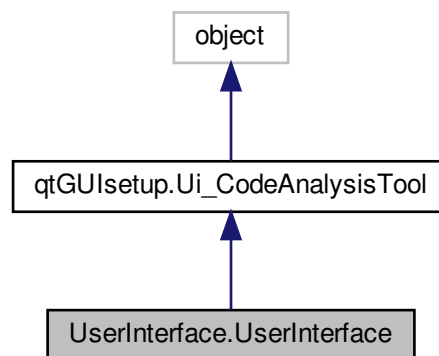
- [/home/daniel/TampereUniversity/SoftwareEngMethod/project/GitRepo.py](#)

## 7.8 UserInterface.UserInterface Class Reference

Inheritance diagram for UserInterface.UserInterface:



Collaboration diagram for UserInterface.UserInterface:



### Public Member Functions

- def `__init__` (self, CodeAnalysisTool)
- def `bindActiveWidgets` (self)  
*Binds widgets to the methods that process inputs.*
- def `switchBranch` (self)  
*Called when user changes branches in the dropdown menu.*
- def `switchRepoContext` (self, repo\_idx)  
*Called when the user switches between the top tabs.*

- def `readRepoUrl` (self)  
*Gets called only once for every repository Currently it is not possible to load a different repository once we load something.*
- def `analyseSonar` (self)  
*analyseSonar*
- def `menuScreenSel` (self, index)  
*Used to switch between user views (repo, )*
- def `docBrowser` (self, idx)  
*Standard document browser and sets the info field with the chosen path*
- def `prettyDict` (self, some\_dict)  
*Used to print dict contents into information field in a resonably nice way.*
- def `cleanup` (self)  
*Runs on exit and cleans workspace.*

## Public Attributes

- `active_repo`

## 7.8.1 Constructor & Destructor Documentation

### 7.8.1.1 `__init__()`

```
def UserInterface.UserInterface.__init__ (
    self,
    CodeAnalysisTool )
```

## 7.8.2 Member Function Documentation

### 7.8.2.1 `analyseSonar()`

```
def UserInterface.UserInterface.analyseSonar (
    self )
```

`analyseSonar`

Takes parameters from GUI and runs the current(14.2.) main function with them

Literally cypypasta from current(14.2.) main and changed command line parameters to the GUI ones. NOTE: This could be done in a separate module to be used by both, main and GUI.

### 7.8.2.2 bindActiveWidgets()

```
def UserInterface.UserInterface.bindActiveWidgets (
    self )
```

Binds widgets to the methods that process inputs.

### 7.8.2.3 cleanup()

```
def UserInterface.UserInterface.cleanup (
    self )
```

Runs on exit and cleans workspace.

### 7.8.2.4 docBrowser()

```
def UserInterface.UserInterface.docBrowser (
    self,
    idx )
```

Standard document browser and sets the info field with the chosen path

#### Parameters

<i>idx</i>	Index determines where the data loaded will be saved
------------	--

### 7.8.2.5 menuScreenSel()

```
def UserInterface.UserInterface.menuScreenSel (
    self,
    index )
```

Used to switch between user views (repo, )

#### Parameters

<i>index</i>	Number representing the menu screen
--------------	-------------------------------------

### 7.8.2.6 prettyDict()

```
def UserInterface.UserInterface.prettyDict (
```

```
self,  
some_dict )
```

Used to print dict contents into information field in a reasonably nice way.

#### Parameters

<i>some_dict</i>	Any dictionary to be 'prettyfied'
------------------	-----------------------------------

#### Note

could probably just be used as private method

#### 7.8.2.7 readRepoUrl()

```
def UserInterface.UserInterface.readRepoUrl (  
    self )
```

Gets called only once for every repository Currently it is not possible to load a different repository once we load something.

#### 7.8.2.8 switchBranch()

```
def UserInterface.UserInterface.switchBranch (  
    self )
```

Called when user changes branches in the dropdown menu.

#### 7.8.2.9 switchRepoContext()

```
def UserInterface.UserInterface.switchRepoContext (  
    self,  
    repo_idx )
```

Called when the user switches between the top tabs.

#### Parameters

<i>repo_idx</i>	Index specifying which repo needs to be displayed
-----------------	---



### 7.8.3 Member Data Documentation

#### 7.8.3.1 active\_repo

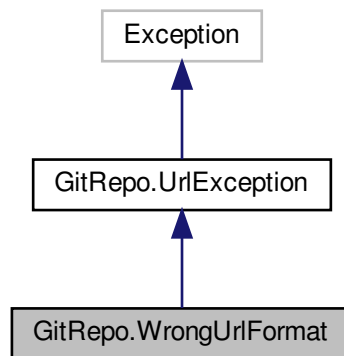
`UserInterface.UserInterface.active_repo`

The documentation for this class was generated from the following file:

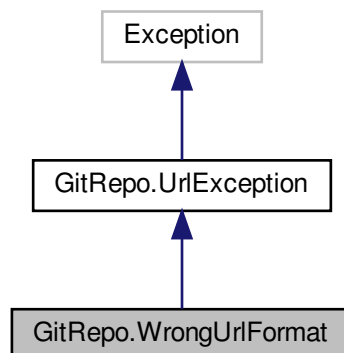
- `/home/daniel/TampereUniversity/SoftwareEngMethod/project/UserInterface.py`

## 7.9 GitRepo.WrongUrlFormat Class Reference

Inheritance diagram for `GitRepo.WrongUrlFormat`:



Collaboration diagram for `GitRepo.WrongUrlFormat`:



The documentation for this class was generated from the following file:

- `/home/daniel/TampereUniversity/SoftwareEngMethod/project/GitRepo.py`

## Chapter 8

# File Documentation

### 8.1 /home/daniel/TampereUniversity/SoftwareEngMethod/project/analysisParser.py File Reference

#### Namespaces

- [analysisParser](#)

#### Functions

- def [analysisParser.analysisParse](#) (df, csv\_name)  
*analysisParse*
- def [analysisParser.analysisParseFile](#) (json\_file, csv\_name='analysis.csv')  
*analysisParseFile*
- def [analysisParser.analysisParseList](#) (df\_list, csv\_name='analysis.csv')  
*analysisParseList*
- def [analysisParser.analysisParseJson](#) (json\_string, csv\_name='analysis.csv')  
*analysisParseJson*
- def [analysisParser.analysisParseGit](#) (git\_info, csv\_name='analysis\_git.csv')  
*analysisParseGit*

#### Variables

- [analysisParser.df](#) = load(f)

### 8.2 /home/daniel/TampereUniversity/SoftwareEngMethod/project/GitRepo.py File Reference

#### Classes

- class [GitRepo.GitRepo](#)  
*Class that provides all the necessary functionality associated with git repos.*
- class [GitRepo.UrlException](#)
- class [GitRepo.NoUrlSpecified](#)
- class [GitRepo.WrongUrlFormat](#)

## Namespaces

- [GitRepo](#)

## Variables

- [GitRepo.curr\\_work\\_dir](#) = os.path.join(os.getcwd(), 'tmpRepo')
- list [GitRepo.com\\_inf](#) = []
- [GitRepo.repo\\_instance](#) = GitRepo(curr\_work\_dir)

## 8.3 /home/daniel/TampereUniversity/SoftwareEngMethod/project/main.py File Reference

### Namespaces

- [main](#)

### Functions

- def [main.wait](#) (message, predicate, sleeptime=2, timeout=-1)  
*Wait for a predicate to be true.*
- def [main.main](#) (args)

### Variables

- [main.ap](#) = argparse.ArgumentParser()
- [main.action](#)
- [main.help](#)
- [main.metavar](#)
- [main.default](#)
- [main.nargs](#)
- [main.args](#) = ap.parse\_args()
- [main.file](#)

## 8.4 /home/daniel/TampereUniversity/SoftwareEngMethod/project/qtGUIsetup.py File Reference

### Classes

- class [qtGUIsetup.Ui\\_CodeAnalysisTool](#)

### Namespaces

- [qtGUIsetup](#)

## 8.5 /home/daniel/TampereUniversity/SoftwareEngMethod/project/README.md File Reference

## 8.6 /home/daniel/TampereUniversity/SoftwareEngMethod/project/run.py File Reference

### Namespaces

- [run](#)

### Variables

- [run.app](#) = QtWidgets.QApplication(sys.argv)
- [run.main\\_window](#) = QtWidgets.QMainWindow()
- [run.ui](#) = UserInterface(main\_window)

## 8.7 /home/daniel/TampereUniversity/SoftwareEngMethod/project/setup.py File Reference

### Namespaces

- [setup](#)

### Functions

- def [setup.installRequirements](#) (req\_file="requirements.txt")  
*Will read file.*

### Variables

- string [setup.req\\_file](#) = "

## 8.8 /home/daniel/TampereUniversity/SoftwareEngMethod/project/Sonar.py File Reference

### Classes

- class [Sonar.SonarError](#)
- class [Sonar.Sonar](#)  
[Sonar](#).

### Namespaces

- [Sonar](#)

## Variables

- tuple `Sonar.auth_test` = ('admin', 'admin')
- string `Sonar.url_test` = '127.0.0.1'
- int `Sonar.port_test` = 9000
- `Sonar.sonarObject` = `Sonar()`

## 8.9 /home/daniel/TampereUniversity/SoftwareEngMethod/project/sonarAPI.py File Reference

### Classes

- class `sonarAPI.API`  
*Class for SonarQube web api public api includes:*

### Namespaces

- `sonarAPI`

### Variables

- `sonarAPI.api` = `API()`

## 8.10 /home/daniel/TampereUniversity/SoftwareEngMethod/project/UserInterface.py File Reference

### Classes

- class `UserInterface.UserInterface`

### Namespaces

- `UserInterface`

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