
time-table-assist-tool

Release 0.0.1

Purushottam Sinha

Oct 25, 2019

CONTENT:

1	Installation	1
1.1	User Manual	1
1.1.1	Working in GUI #1	1
1.1.2	Working in GUI #2	3
1.2	Developer Manual	15
1.2.1	Software Requirements	15
1.2.2	Bug Reports and Feature Requests	16
1.2.3	Contributing on the Project	16
1.2.4	Core Developers	20
1.2.5	Branch Model	20
1.3	Contributors	20
1.4	Change Log	21
1.5	Need Help	24
1.6	License	24
1.7	Contact	24

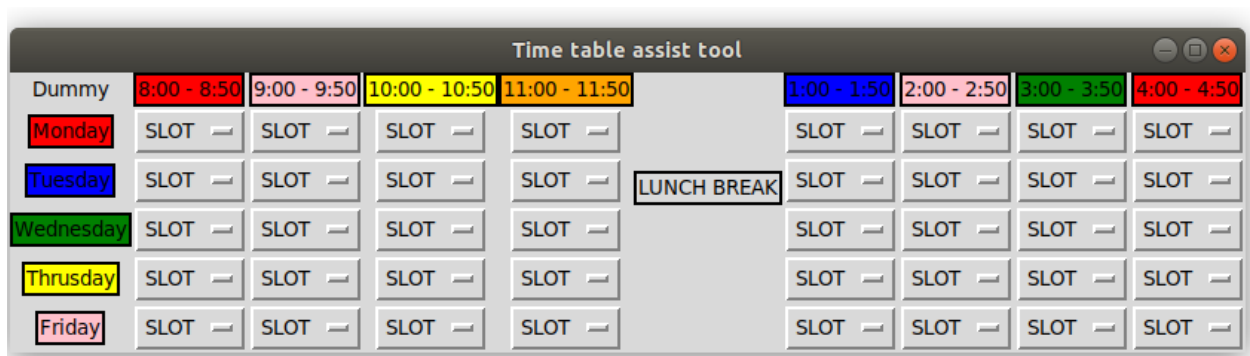
INSTALLATION

```
sudo apt-get install python3-tk  
python3 main.py
```

1.1 User Manual

1.1.1 Working in GUI #1

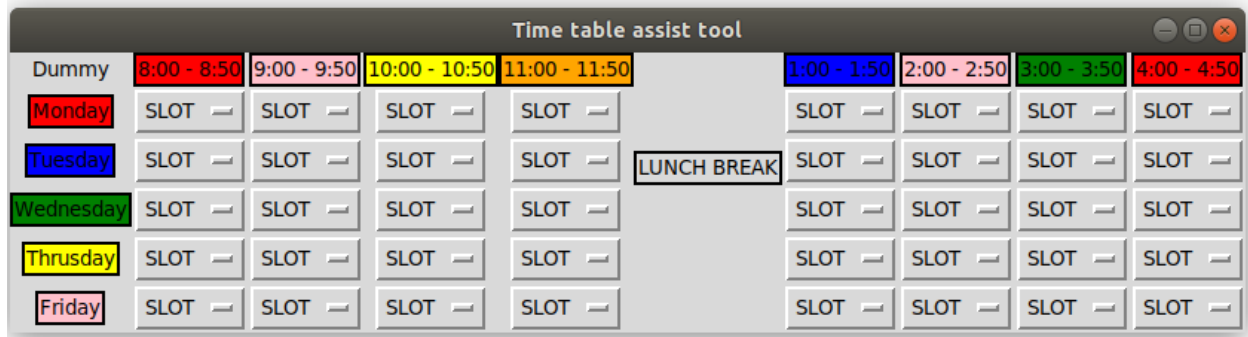
Steps



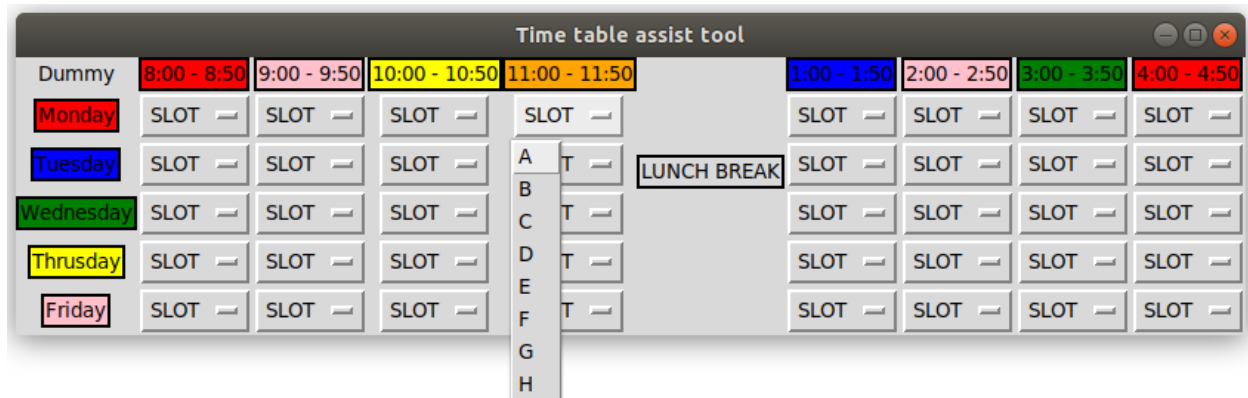
1. To open the window explicitly type the following code in cmd (Windows) or terminal (Linux)

```
python progl.py
```

2. Select the slots from drop down
 - The window opens up as a separate pop up



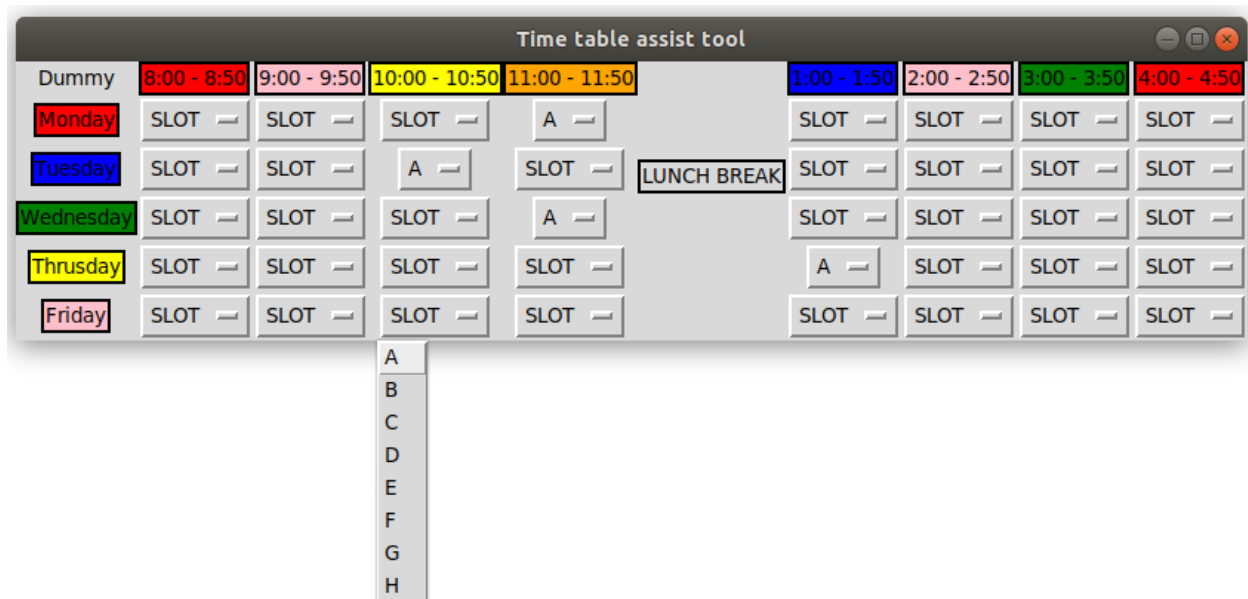
- Mouse over the desired block and click on it to view the slots



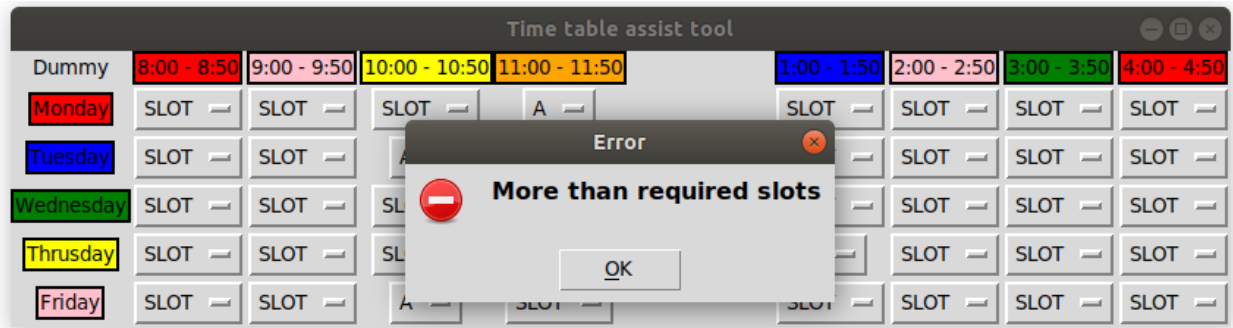
Anamolies Management

Case 1

- Selecting of more than four slots

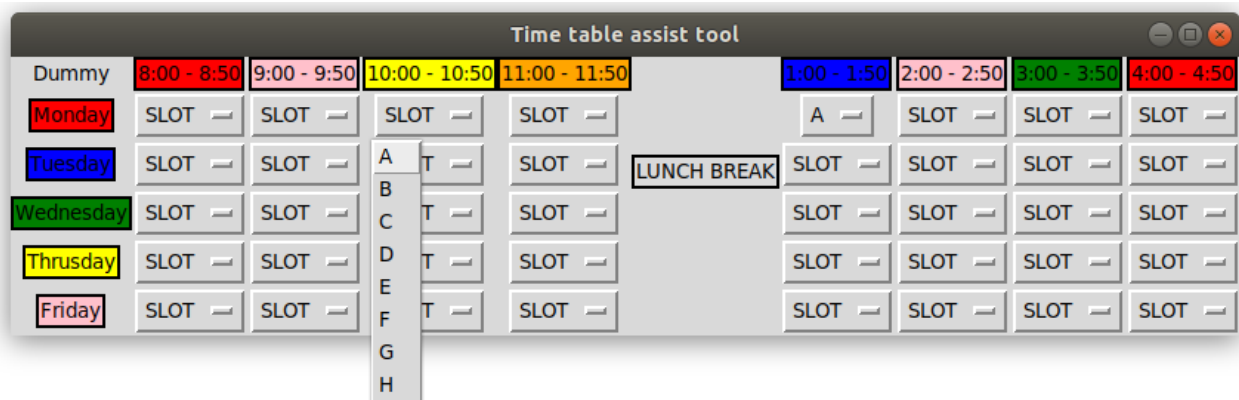


- Error notice view

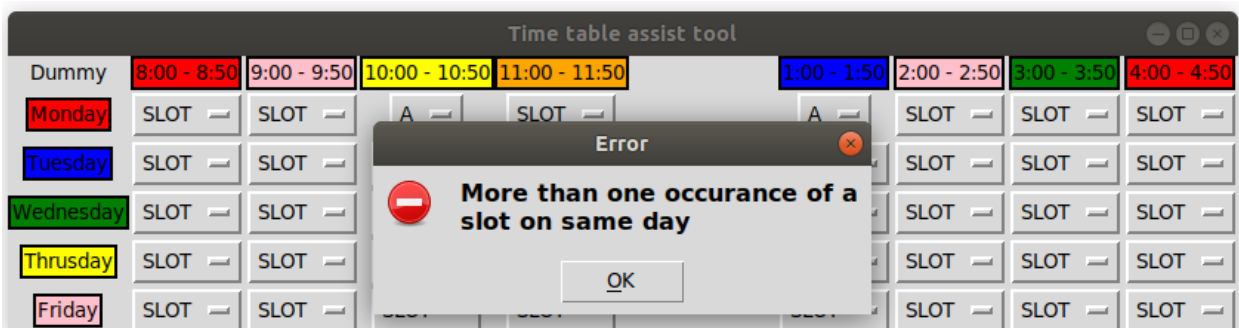


Case 2

- Selecting more than one occasions for one slot in a day

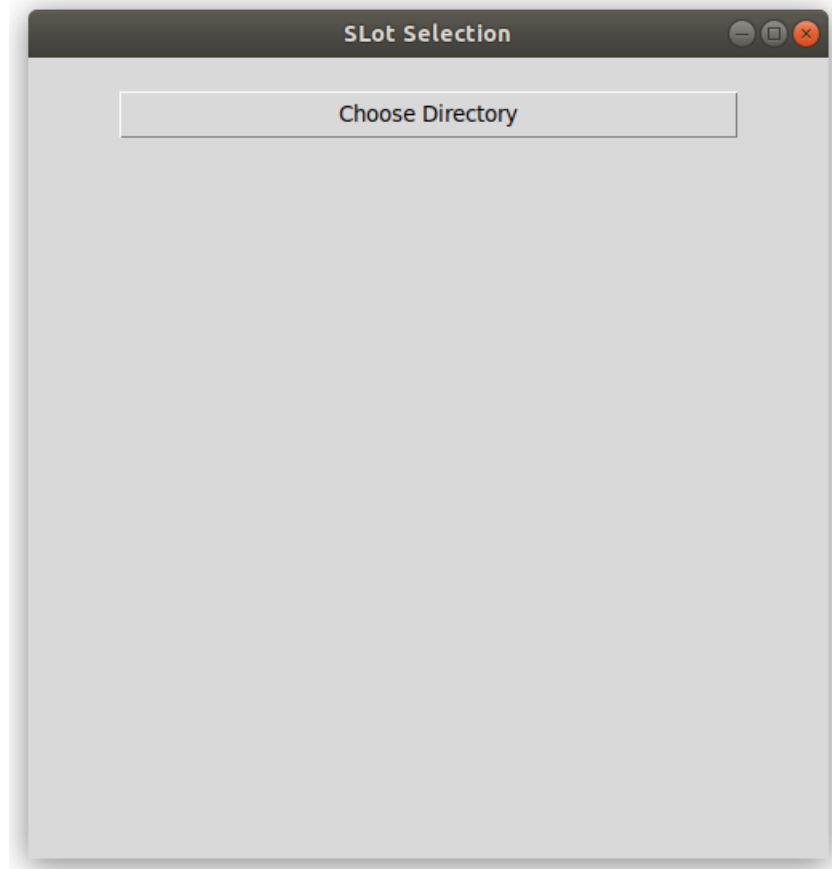


- Error notice view



1.1.2 Working in GUI #2

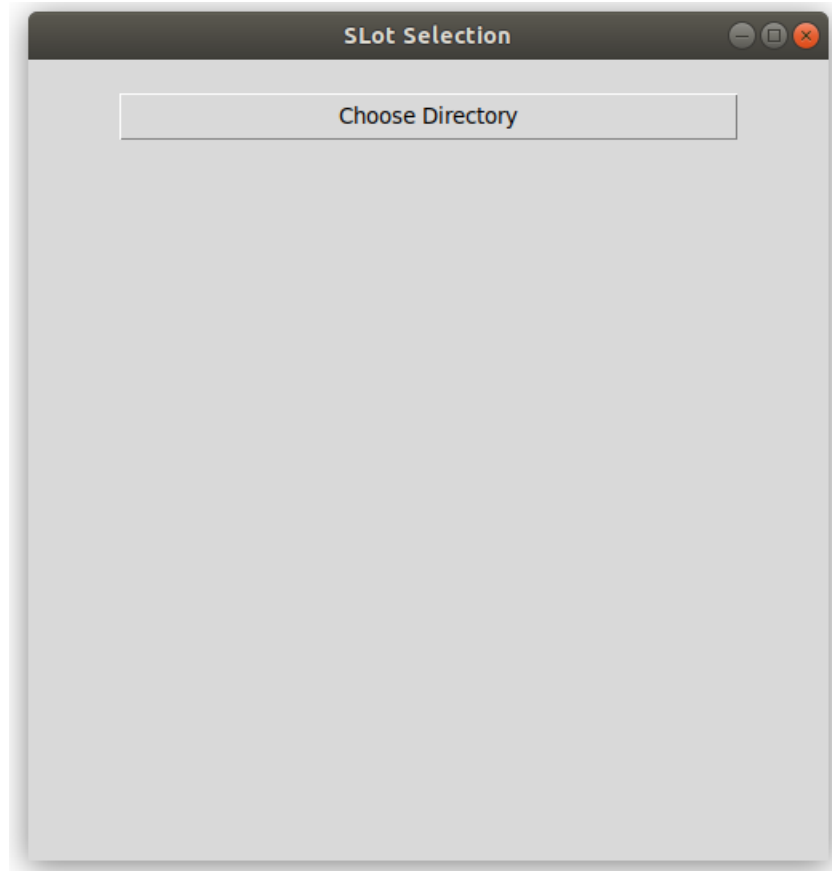
Steps



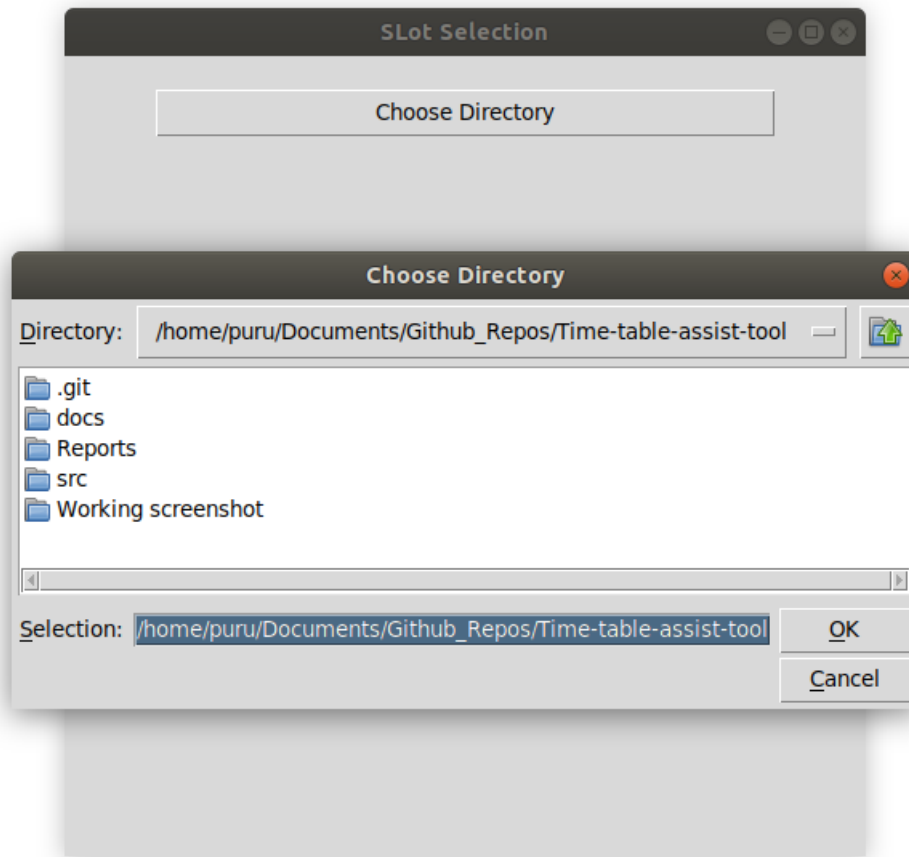
1. To open the window explicitly type the following code in cmd (Windows) or terminal (Linux)

```
python prog2.py
```

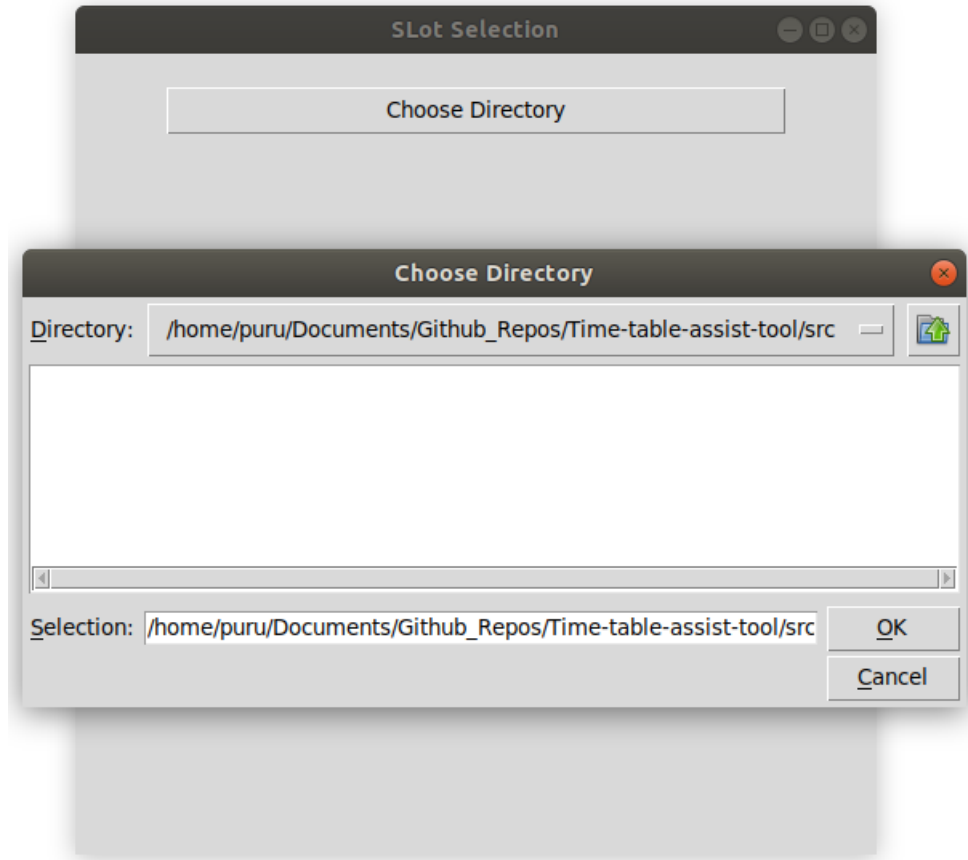
2. Select the slots from drop down
 - The window opens up as a seperate pop up



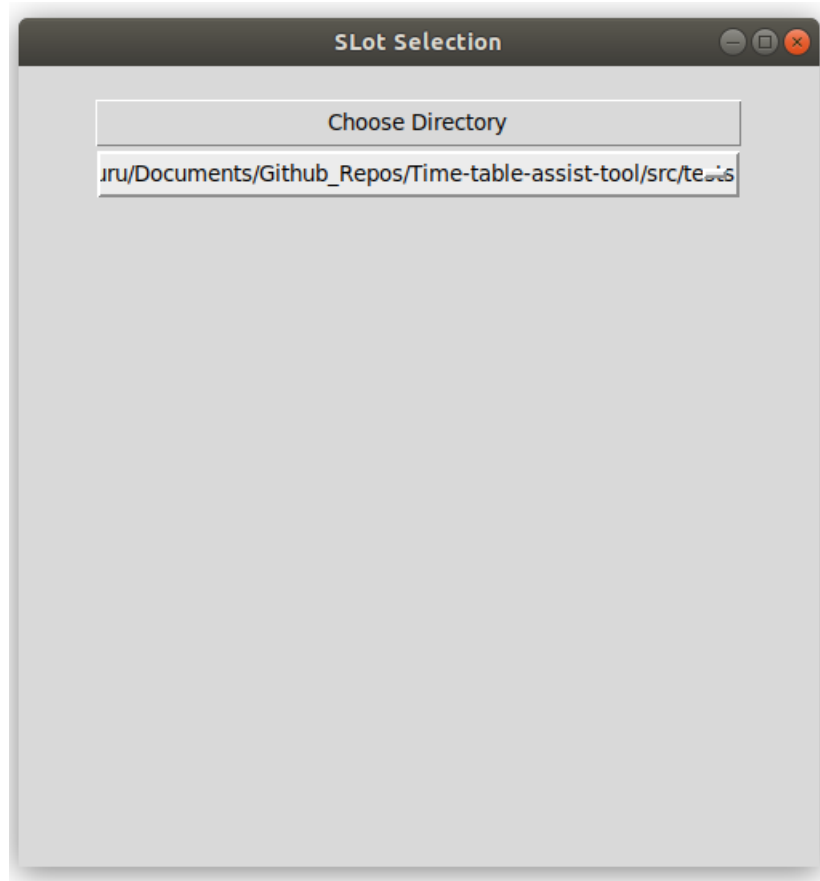
- Click on the Choose Directory button



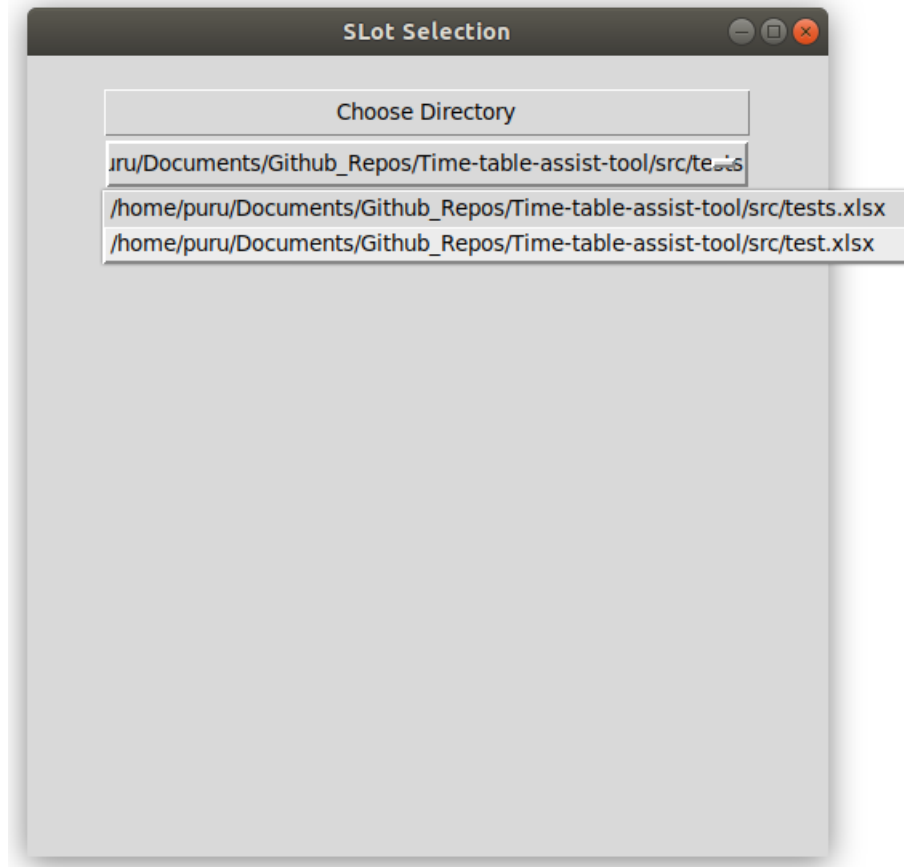
- Choose directory in which you have all your electives sheets



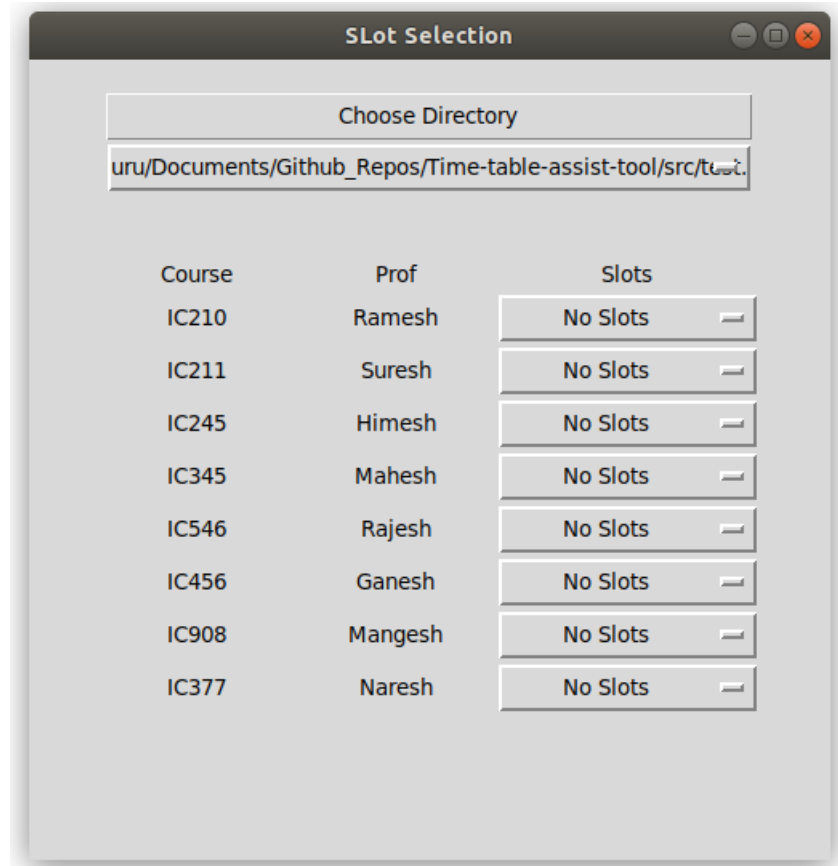
- The application will automatically download all the concerned



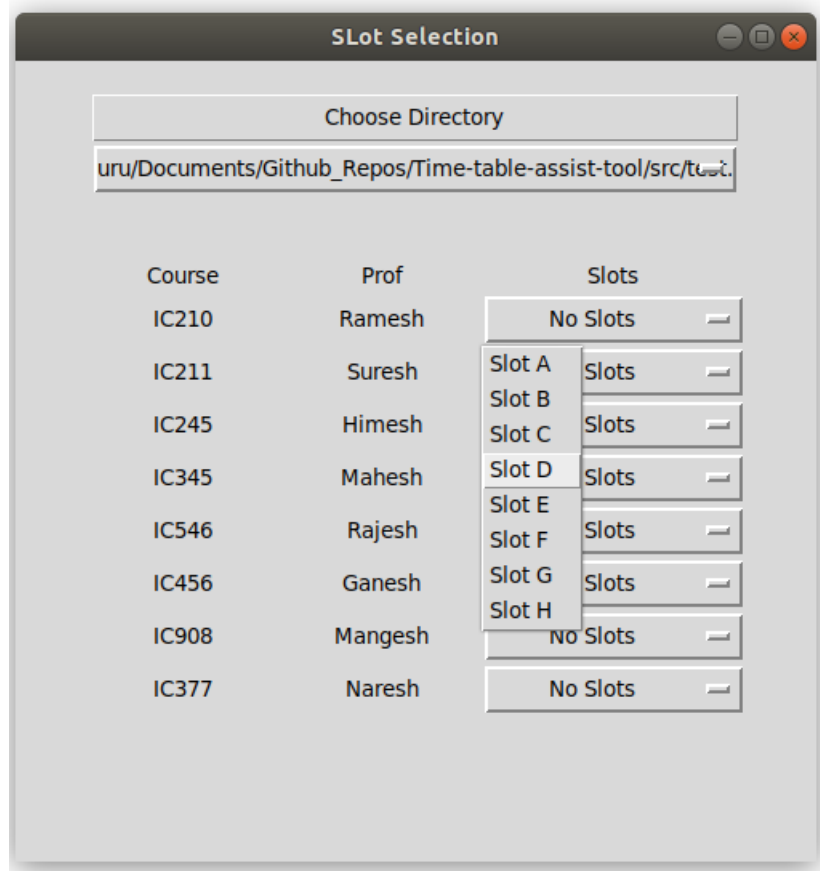
- Select the basket you want to work upon



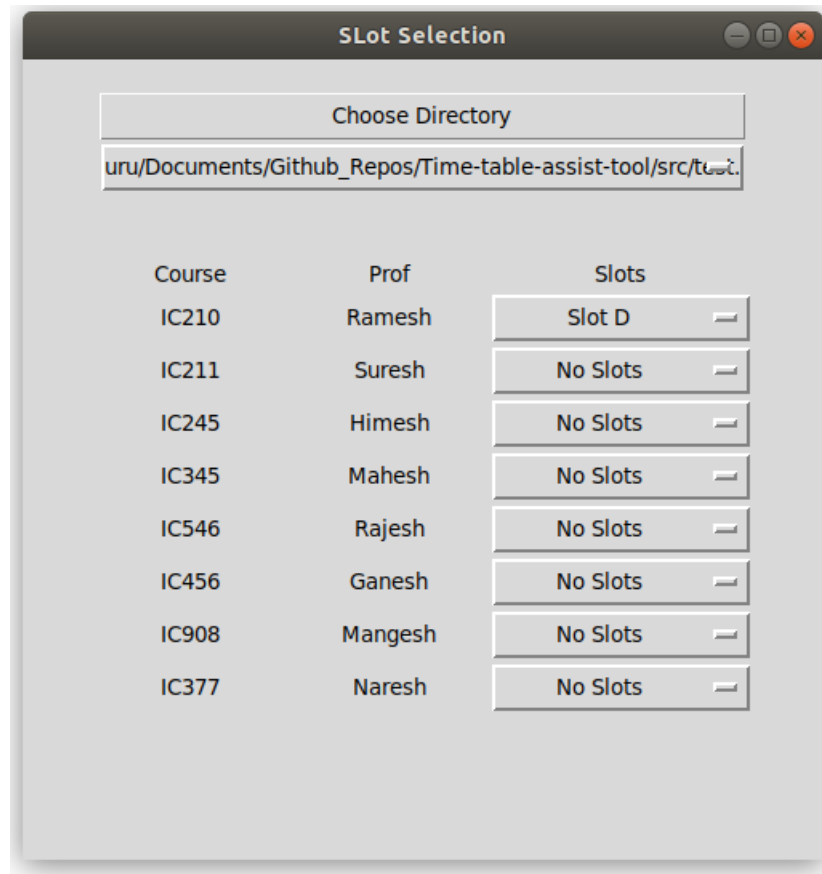
- The window will get the informations about the basket including the baskets



- A drop down will appear with the list of slots



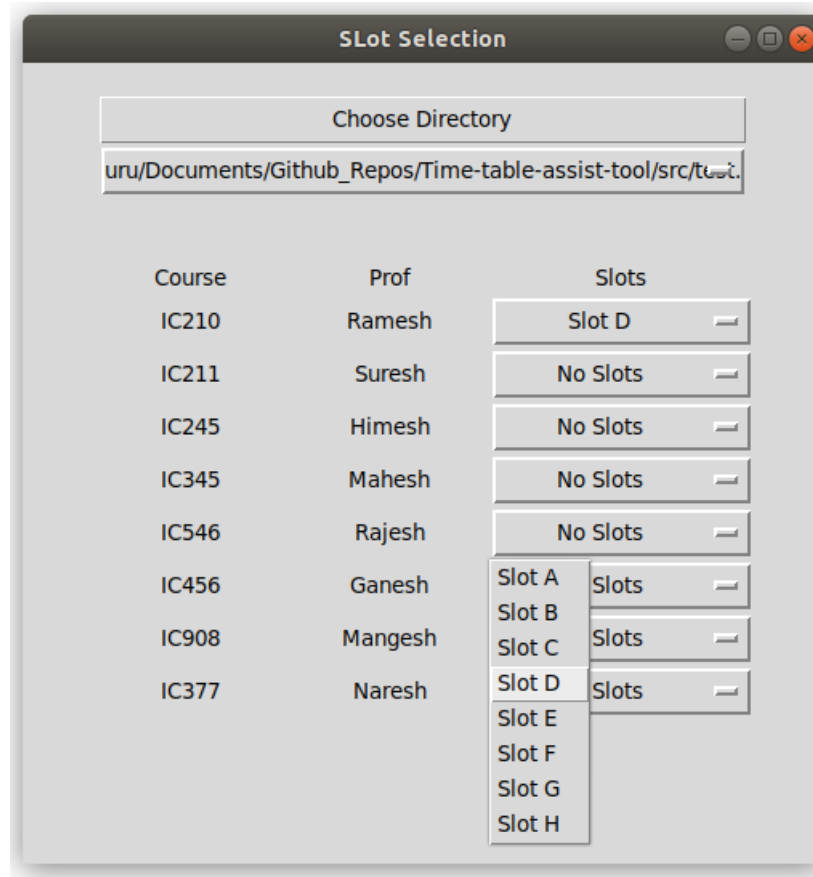
- The selected slot will be saved in the appropriate locations



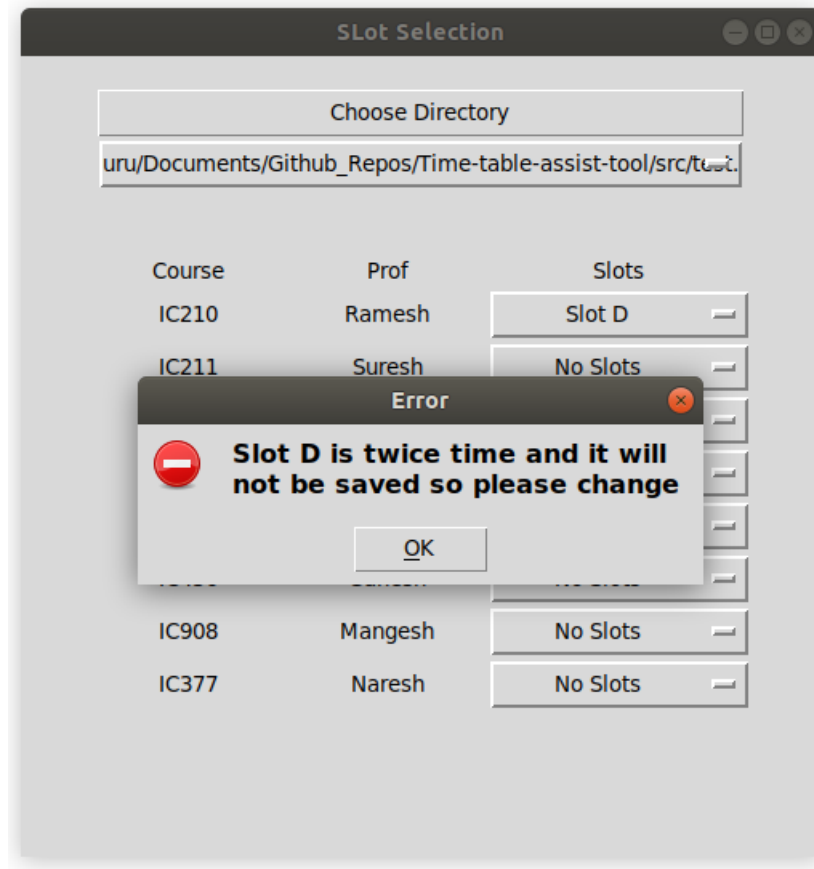
Anamolies Management

Case 1

- Selecting same slots for two courses in the same basket

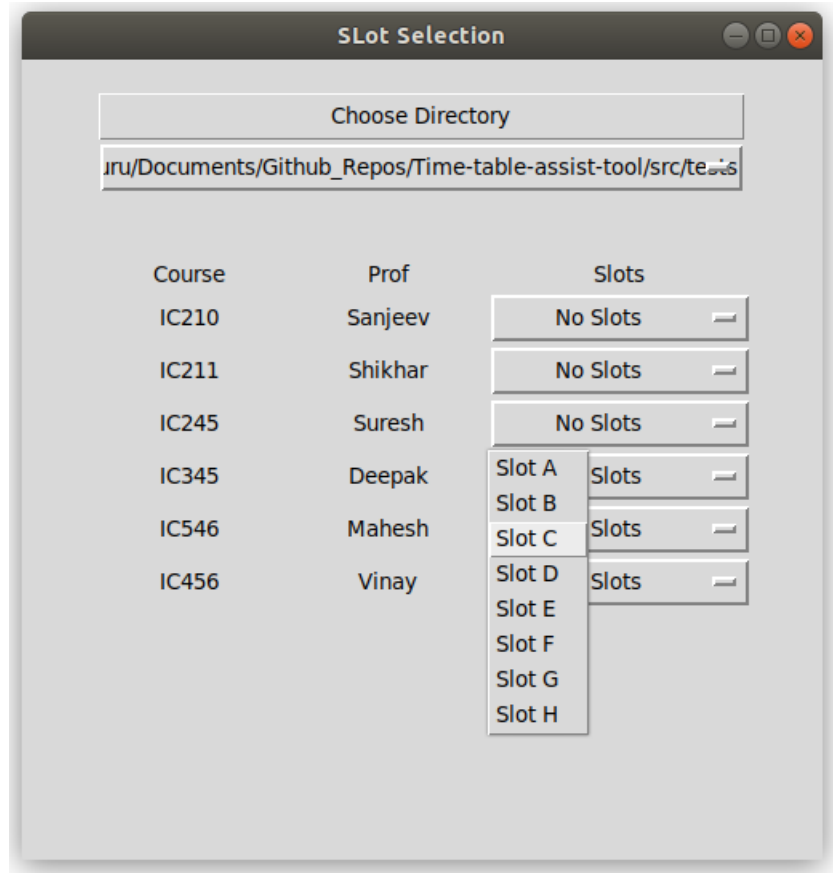


- Error notice view

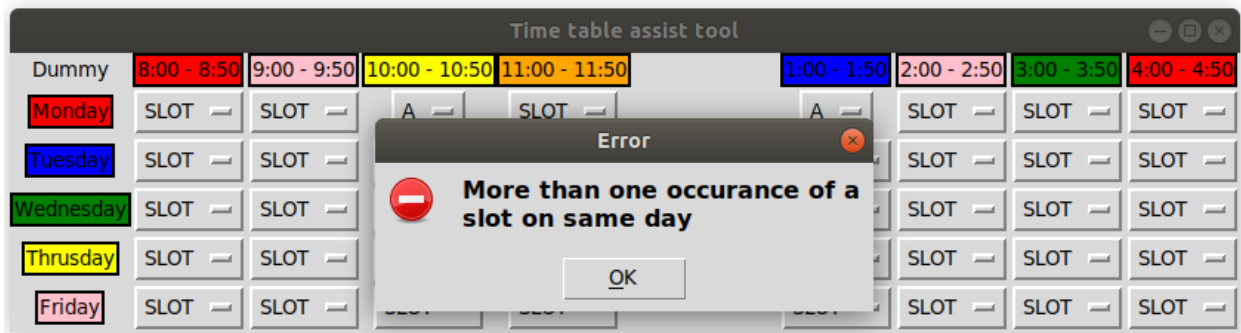


Case 2

- Selecting same slots for a prof in two basket



- Error notice view



1.2 Developer Manual

1.2.1 Software Requirements

The following softwares are needed to be installed:

- Python3
- tkinter
- openepyl

- Sphinx

```
sudo apt-get install python3
sudo apt-get install python3-tk
pip install openepyx1
```

Sphinx installation is needed in case you want to work on the documentation

```
pip install sphinx
```

Note that to compile the changes made to the documentation you have to move to the docs folder and compile your changes

```
cd docs/
make html
```

The file will be changed in the *build/html* folder

For more information on working with sphinx you can refer: <https://www.sphinx-doc.org/en/master/index.html>

1.2.2 Bug Reports and Feature Requests

If you have encountered a problem with the application or have an idea for a new feature, please submit it as an issue tracker on Github.

After getting approval from a moderator, you may make a pull request to the repository.

1.2.3 Contributing on the Project

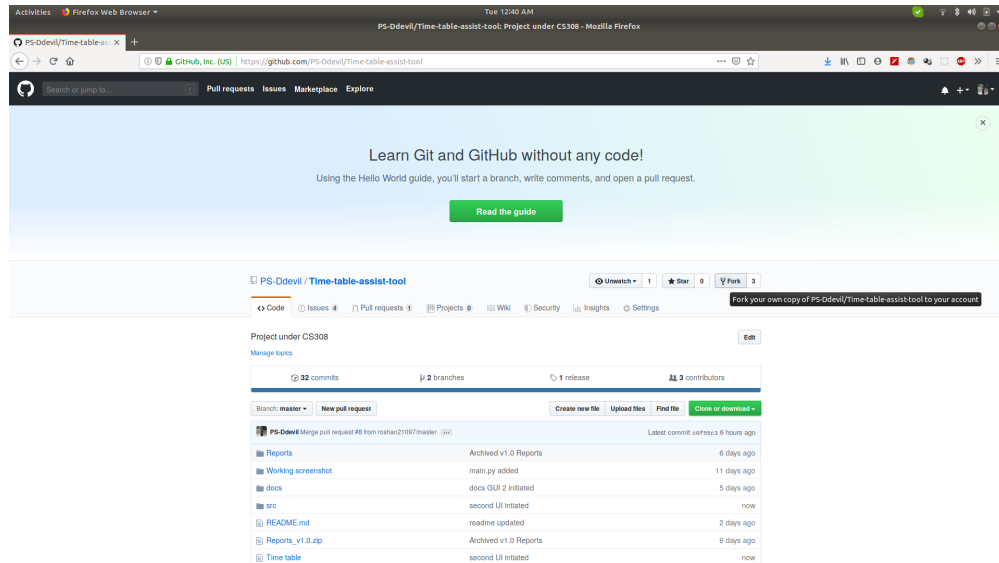
The recommended way for new contributors to submit code to Sphinx is to fork the repository on GitHub and then submit a pull request after committing the changes. The pull request will then need to be approved by one of the core developers before it is merged into the main repository.

1. Clone the Repository
2. Working on any of the given modules:
 - GUI#1
 - GUI#2
 - Documentation

Getting Started

These are the basic steps needed to start developing on the application.

1. Create a Github Account.
2. **Got to the given link** <https://github.com/PS-Ddevil/Time-table-assist-tool>
3. Click on the fork option to make a copy of the repo on your profile



4. Go to a desired location on you local system(PC).
5. Open the terminal by pressing **Alt+Ctrl+T**
6. Run the command

```
git clone https://github.com/<git-username>/Time-table-assist-tool.git
```

where <git-username> refers to the Username of your Github profile

Working on GUI#1

1. Move to the cloned the folder

```
cd Time-table-assist-tool
```

2. Open the *probl.py* file.

Open the *probl.py* file in any text editor of your choice

For Sublime Editor:

```
subl probl.py
```

For Atom Editor:

```
atom probl.py
```

For Visual Studio Code:

```
code probl.py
```

3. There are three broad sections in the code

- GUI Development
- Slot management algorithm section
- Slot rendering section

SECTION 1:

```
# DEFINING THE GUI ELEMENTS
Label(master, text='').grid(row=0)
Label(master, text='8:00 - 8:50',borderwidth=2, relief="solid",bg='red').grid(row=0,
↪column=1)
Label(master, text='9:00 - 9:50',border.....
```

SECTION 2:

```
# THIS SECTION DEFINES THE ALGORITHM TO UPDATE THE OPTIONS IN THE GUI
def update_options(var, row_val):
    cr = cr_vars[var].get()
    if(old_var[var] == cr):
        return 0
    if match[row_val][ord(cr)-65] == True:
        cr_vars[var].set("SLOT")
        messagebox.showerror("Erro....
```

SECTION 3:

```
# THIS SECTION DEFINES THE RENDERING OF THE SLOTS IN THE GUI'S TIMETABLE MATRIX
for i in range(1,6):
    for j in range(1,10):
        cr_vars.append(StringVar(master))
        cr_vars[z].set("SLOT")
        old_var.append("SLOT")
        left_course = ['A', 'B'...
```

4. Modify the code accordingly and commit changes when necessary.

Working on GUI#2

1. Move to the cloned the folder

```
cd Time-table-assist-tool
```

2. Open the *probl.py* file.

Open the *probl.py* file in any text editor of your choice

For Sublime Editor:

```
subl probl.py
```

For Atom Editor:

```
atom probl.py
```

For Visual Studio Code:

```
code probl.py
```

3. There are Three broad section for the GUI#2

- DropDown Function
- ConstraintCheck Function

- Display GUI
- DialogBOX

SECTION 1:

```
def DropDown():
    global lists,v
    v.set("Select File")
    w = OptionMenu(frame1, v, *lists)
    w.grid(row=1,column=0,columnspan=3,sticky=W+E+N+S)
    w.config(width=45)
    v.trace("w", DisplayGUI)
```

SECTION 2:

```
def ConstraintCheck(var,i,name,focus,*args):
    global file_path
    wb = openpyxl.load_workbook(str(os.path.join(file_path, v.get())))
    ws = wb.active
    j=0
    for j in range(2,ws.max_row+1):
        c1=ws.cell(j,5)
        if i==j:
            continue
        if c1.value==var.get():
            messagebox.showerror("Err...
```

SECTION 3:

```
def DisplayGUI(*args):
    global file_path
    for widget in frame2.wininfo_children():
        widget.destroy()
    wb = openpyxl.load_workbook(str(os.path.join(file_path, v.get())))
    ws = wb.active
    slots=['Slot A','Slot B','Slot C','Slo...
```

SECTION 4:

```
def DialogBox():
    global file_path
    file_path=filedialog.askdirectory()
    global lists, v
    a=str(os.path.join(file_path, "track.xlsx"))
    wb = openpyxl.load_workb....
```

4. Include the required packages in the top of the file

```
# Include your packages here
from tkinter import *
from tkinter import messagebox
import os
import openpyxl
from tkinter import filedialog
```

1.2.4 Core Developers

The core developers of the application have write access to the main repository. They can commit changes, accept/reject pull requests, and manage items on the issue tracker.

You do not need to be a core developer or have write access to be involved in the development of the application. You can submit patches or create pull requests from forked repositories and have a core developer add the changes for you.

The following are some general guidelines for core developers:

- Questionable or extensive changes should be submitted as a pull request instead of being committed directly to the main repository. The pull request should be reviewed by another core developer before it is merged.
- Trivial changes can be committed directly but be sure to keep the repository in a good working state and that all tests pass before pushing your changes.
- When committing code written by someone else, please attribute the original author in the commit message and any relevant CHANGES entry.

1.2.5 Branch Model

The branch are made when a new major portion is added into the application. Only minor changes and bug removal in the branch would be appreciated.

Conventions

master:

The is the most recent branch and the one which is currently deployed for the consumer.

X.Y:

Where X.Y stands for the MAJOR.MINOR release.

X.Y.Z:

Where X.Y.Z stands for MAJOR.MINOR.PATCH release.

1.3 Contributors

Purushottam Sinha (B17053@students.iitmandi.ac.in)

Deepak Kumar (B17039@students.iitmandi.ac.in)

Vinay Kumar (B17070@students.iitmandi.ac.in)

Roshan Sharma (B17054@students.iitmandi.ac.in)

1.4 Change Log

commit 6a394f12548cdef11c5d183a1e34d1f3e86e71d1 Merge: 9bcaddb 5d2f2b3 Author: Purushottam Sinha <sinhapurushottam911@gmail.com> Date: Fri Oct 25 10:33:15 2019 +0530

Merge pull request #10 from deepakjnv880/master

Save and redo added and also readme updated

commit 5d2f2b353e9e8196f6c06cba5c49883eb4e32e61 Author: deepakjnv880 <b17039@students.iitmandi.ac.in> Date: Fri Oct 25 01:52:21 2019 +0530

radme updated

commit d11add6c3b03e1af4d7dd90a6d87f4b5c5bed7ad Author: deepakjnv880 <b17039@students.iitmandi.ac.in> Date: Thu Oct 24 22:13:03 2019 +0530

sqlite code deleted

commit 9bcaddb51dd09f6eac833923c9bb809c94e566fb Author: PS-Ddevil <sinhapurushottam911@gmail.com> Date: Tue Oct 22 22:19:53 2019 +0530

Changed names and initiated Main Interface

commit 04df884256c53c71af68c5814e6087002a004907 Author: PS-Ddevil <sinhapurushottam911@gmail.com> Date: Tue Oct 22 21:23:10 2019 +0530

Adding after Resolving issues

commit b2d46920be421fb5e1bce3b2532bfbb404de4de0 Merge: dd865e7 f18c9b6 Author: PS-Ddevil <sinhapurushottam911@gmail.com> Date: Tue Oct 22 21:19:28 2019 +0530

Removing conflict

commit dd865e732cfbcb6d1ec61774c9b622a78a9b739a Author: PS-Ddevil <sinhapurushottam911@gmail.com> Date: Tue Oct 22 21:17:12 2019 +0530

Initialise developer manual

commit f18c9b64f234399887a1bcc19bce5e356438e680 Merge: c0f55c3 3629213 Author: Purushottam Sinha <sinhapurushottam911@gmail.com> Date: Tue Oct 22 13:49:42 2019 +0530

Merge pull request #9 from vinayskywalker/master

constrain and conflict check

commit 36292135e2bae55907bbb9f24ccca3bf88356502 Author: vinayskywalker <vinaykumar.dakshana17@gmail.com> Date: Tue Oct 22 13:34:15 2019 +0530

constrain and conflict check

commit c0f55c3c407e9f56acbbb39e81bf04812f835768 Merge: fed3263 fdc059d Author: Purushottam Sinha <sinhapurushottam911@gmail.com> Date: Mon Oct 21 18:34:22 2019 +0530

Merge pull request #8 from roshan21097/master

second UI initiated

commit fdc059d4775489c13d6f6005c6f745611ecc491e Author: Roshan Sharma <rsharma21097@gmail.com> Date: Mon Oct 21 18:29:24 2019 -0400

second UI initiated

commit fed3263b023da6b3aedcf176d44dc8a9bfb05e2f Merge: c8e59c9 3a4adfe Author: Purushottam Sinha <sinhapurushottam911@gmail.com> Date: Sat Oct 19 18:24:04 2019 +0530

Merge pull request #6 from deepakjnv880/master

sqlite3 integrated and readme updated

commit 3a4adfe07434bfc90a945bb2bbdda84dbb9cd8b3 Author: deepakjnv880 <b17039@students.iitmandi.ac.in>
Date: Sat Oct 19 16:36:22 2019 +0530

readme updated

commit 51fd2051edaeb811808b1ff11d4a2ff7199c5efc Author: deepakjnv880 <b17039@students.iitmandi.ac.in>
Date: Sat Oct 19 16:33:52 2019 +0530

sqlite3 integrated

commit 083ff065863365268bfabdd54854892d3edb1c93 Merge: 611aea9 c8e59c9 Author: Deepak kumar <b17039@students.iitmandi.ac.in> Date: Sat Oct 19 16:29:41 2019 +0530

Merge pull request #1 from PS-Ddevil/master

updating my repo

commit c8e59c9d733819e1720ae45ff7a34f4bae1934a6 Author: PS-Ddevil <sinhapurushottam911@gmail.com>
Date: Wed Oct 16 15:46:35 2019 +0530

docs GUI 2 initiated

commit 4c03d8f0e051c386d75a7631a71dbfda97f1cde1 Author: PS-Ddevil <sinhapurushottam911@gmail.com>
Date: Wed Oct 16 15:32:17 2019 +0530

Updated documentation

commit c90f3cafbace541c10b9764ff0ed08ee1b03c7fb Merge: 78da67a 81be0bf Author: PS-Ddevil <sinhapurushottam911@gmail.com> Date: Wed Oct 16 12:28:19 2019 +0530

Merge branch 'master' of <https://github.com/PS-Ddevil/Time-table-assist-tool>

commit 78da67a13eb34078497a648119a1f58e12ed6039 Author: PS-Ddevil <sinhapurushottam911@gmail.com>
Date: Wed Oct 16 12:27:25 2019 +0530

Archived v1.0 Reports

commit 81be0bf8f837d9996427833743a6ed5d095b4a7a Author: Purushottam Sinha <sinhapurushottam911@gmail.com> Date: Wed Oct 16 12:23:11 2019 +0530

Modified Contributions Section

commit fa31f00f2c965d63a717475851ecccdd0fffb12 Author: PS-Ddevil <sinhapurushottam911@gmail.com> Date: Wed Oct 16 12:18:21 2019 +0530

Documentation up to date till 16/10/19

commit 10e59c70bedaf1d581f7164172072d811d89d0e1 Merge: b95df63 611aea9 Author: Deepak kumar <b17039@students.iitmandi.ac.in> Date: Wed Oct 16 11:57:07 2019 +0530

Merge pull request #4 from deepakjnv880/master

Readme updated

commit 611aea9348665da66504fffb1bede5d8fe4f73e3 Author: Deepak kumar <b17039@students.iitmandi.ac.in>
Date: Wed Oct 16 11:55:24 2019 +0530

Update README.md

commit 79fa39aa99a3244db65b8444f3a4ceb8c50cba5a Author: Deepak kumar <b17039@students.iitmandi.ac.in>
Date: Wed Oct 16 11:54:22 2019 +0530

Update README.md

commit a8150172c2e14ad1583100ffff4d478e1ef740c Author: Deepak kumar <b17039@students.iitmandi.ac.in>
Date: Wed Oct 16 11:51:46 2019 +0530

Update README.md

commit b9bb7d5caa08ea4518aca06a4fca0f83006b6497 Author: Deepak kumar <b17039@students.iitmandi.ac.in>
Date: Wed Oct 16 11:47:26 2019 +0530

Update README.md

commit 405d51934feb2a76582423012f3719a4d03fa68e Author: Deepak kumar <b17039@students.iitmandi.ac.in>
Date: Wed Oct 16 11:46:05 2019 +0530

Update README.md

commit 97bba41a8d0407770dba1664bbceb5ed247e3cbf Author: Deepak kumar <b17039@students.iitmandi.ac.in>
Date: Wed Oct 16 11:44:45 2019 +0530

Update README.md

commit b95df63007ed07f8e60896128cf40bb3927e8ced Author: PS-Ddevil <sinhapurushottam911@gmail.com>
Date: Tue Oct 15 00:46:31 2019 +0530

Added DD

commit 2376ac6d375dafa49985ea60d0b2dee7e28df097 Merge: 0f4dc24 93c728a Author: PS-Ddevil <sinhapurushottam911@gmail.com> Date: Mon Oct 14 23:52:03 2019 +0530

Merge branch 'master' of <https://github.com/PS-Ddevil/Time-table-assist-tool>

commit 0f4dc2421b3261bc2e2e63151d03c9a58625d661 Author: PS-Ddevil <sinhapurushottam911@gmail.com>
Date: Mon Oct 14 23:50:12 2019 +0530

creating v1.0

commit 93c728a33e0b8cbd5b17c3c813debbaa6b0d057a Author: Purushottam Sinha <sinhapurushottam911@gmail.com> Date: Fri Oct 11 16:47:41 2019 +0530

Added Documentation Reference

commit c3af04e0e89a5438281af071a574514da75a8974 Author: PS-Ddevil <sinhapurushottam911@gmail.com>
Date: Fri Oct 11 16:43:29 2019 +0530

added master_doc

commit 775fc433b39e5c93cf85fe04e514ea736dce573c Author: PS-Ddevil <sinhapurushottam911@gmail.com>
Date: Fri Oct 11 16:33:58 2019 +0530

Added .readthedocs.yml

commit 61d7e71c2619f52af2ce7fb0d9b6459e3ea6b2c9 Author: PS-Ddevil <sinhapurushottam911@gmail.com>
Date: Fri Oct 11 16:27:15 2019 +0530

Added Docs

commit f8b83e7a39efe4c56773187ce6bc9555126cb946 Author: PS-Ddevil <sinhapurushottam911@gmail.com>
Date: Fri Oct 11 03:31:02 2019 +0530

Improved GUI#1

commit 2625c958c0b2cca72183d10ddf1d6022250d0342 Author: Deepak kumar <b17039@students.iitmandi.ac.in>
Date: Fri Oct 11 00:22:41 2019 +0530

Update README.md

commit ec26c08940274c5c02c368bc0be8f7d789d4e2a9 Author: Deepak kumar <b17039@students.iitmandi.ac.in>
Date: Fri Oct 11 00:20:00 2019 +0530

Update README.md

commit 26b3738c898ab7613cbc17ad665c5b9251d55d69 Author: deepakjnv880 <b17039@students.iitmandi.ac.in>
Date: Fri Oct 11 00:14:59 2019 +0530

main.py added

commit 9c0f400bea553deab57111db6bc810f1e4d3c831 Author: Deepak kumar <b17039@students.iitmandi.ac.in>
Date: Wed Oct 9 14:14:29 2019 +0530

Update README.md

commit 56775b6cf44bdba5f32090333d1641b73adbf5eb Author: Purushottam Sinha <sinhapurushottam911@gmail.com> Date: Wed Oct 9 14:02:48 2019 +0530

Initial commit

1.5 Need Help

If you're having trouble please email b17053@students.iitmandi.ac.in

1.6 License

The MIT License (MIT)

Copyright <YEAR> <COPYRIGHT HOLDER>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.7 Contact

Question? Please contact b17053@students.iitmandi.ac.in