

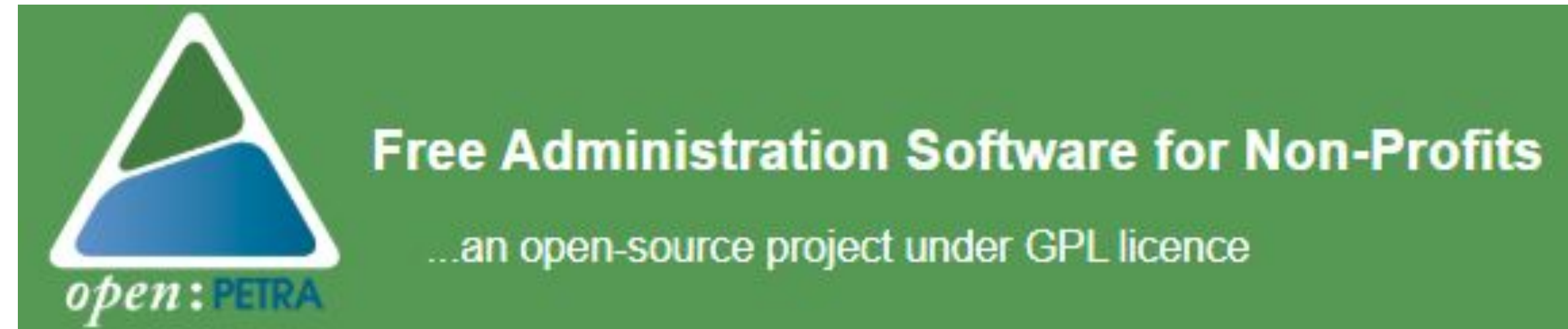


# Contributing to OpenPetra

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## Introduction



The spring semester of 2020, our CSCI 462 course focused on helping with the development of an **Humanitarian Free and Open Source Software** project. The HFOSS we landed on was *OpenPetra*, an administration software for nonprofits dealing with accounting, mail lists, and bookkeeping. We chose to contribute to *OpenPetra* based on the activity in its development community. There were recent updates to the code and a forum maintained by the owner, Timotheus Pokorra. We could also see the nearly 100 open issues, of which, 7 were bugs. We set out to fix 3 of them throughout the semester. After success on our first two bugs, the team was invited to begin working on a new feature.

## Fixes

### Bug 1: Missing Translation Ledger Setup

- Instead of a heading, a variable name was being displayed.
- Added an omitted dictionary term that was being referenced by a javascript method.

### Bug 2: Create Motivation group donations.

- Newly created ledgers had no easy way to add transactions.
- Needed to add an automatically available group that did not require as much information as the others.
- Edited an existing yaml file to influence automatic processes within the system.
- Doing this resolved the main issue of creating ledgers as well as an issue concerning the online demo build.

### ODT Template:

- Add code to allow personalized emails from templates.
- Unzip template file.
- Replace keywords hidden in style text.
- Make new, personalized, ODT files.

## Bug 1:

Create Ledger

Ledger number	10
ledger name	My Charity
base currency	EUR
country code	DE
first day of financial year	01.01.2019
number of accounting periods	12
LedgerSetup.entry_first_current_period	1
number of forward posting periods	8

Save Close

Create Ledger

Ledger number	10
ledger name	My Charity
base currency	EUR
country code	DE
first day of financial year	01.01.2019
number of accounting periods	12
first current period	1
number of forward posting periods	8

Save Close

## Bug 2:

```
Open ▾ [Icon] DefaultMotivations.yml [Read-Only] /home/op_dev/openpetra/csharp/ICT/Petra/Server/sql Save [Menu] [Close] [Error]
RootNodeInternal:
  GIFT:{desclocal=Standard Gifts}
    FIELD:{description=Field Gift, accountcode=0200}
    KEYMIN:{description=Key Ministry Gift, accountcode=0400}
    PERSONAL:{description=Gift for personal use, accountcode=0100}
    SUPPORT:{description=Support Gift, accountcode=0100}
    UNDESIG:{description=Undesignated Gift, accountcode=0300}

  DONATIONS:{desclocal=Standard Donations}
    FIELD:{description=Field Gift, accountcode=0200}
    KEYMIN:{description=Key Ministry Gift, accountcode=0400}
    PERSONAL:{description=Gift for personal use, accountcode=0100}
    SUPPORT:{description=Support Gift, accountcode=0100}
    UNDESIG:{description=Undesignated Gift, accountcode=0300}
```

## ODT Template:

You find the codes in there: {RecipientName}, but unfortunately also <text:span text:style-name="T21">{</text:span><text:span text:style-name="T23">SpAdminName}</text:span> and <text:span text:style-name="T35">{</text:span>RecipientStree<text:span text:style-name="T35">t}</text:span>

**Betreff**

{Salutation} {RecipientName},

Here comes the text that is maintained in this template.

With best regards

Example Charity / {SpAdminName}

**Betreff**

Dear John Doe,

Here comes the text that is maintained in this template.

With best regards

Example Charity / ToysForTots

## Issues

### Setup:

The most difficult part of contributing to this open source software was getting started. Getting a solid development build took days and many messages over GitHub. Everyone involved with the project were already seasoned veterans. The “getting started” section was outdated when we began, but our trouble brought attention to it. *OpenPetra* is now pretty easy to get started developing on.

### Sparse Comments:

You get a renewed appreciation for comments when you have to dig through someone else’s code. It may make sense to the author, but to the new volunteer it is a barrier to entry. Using advanced searches to find sections of code we believed our bugs could originate from proved to be helpful. This was only possible because variables and methods did have meaningful names throughout the code base. Contributions in the form of commenting are helpful uses of time in active projects. We are considering it as an option following the conclusion of our class.

### Nondescript Bug Reports:

Beginning to fix bugs is heavily reliant on the quality of the bug report. As new developers to the project, we did not have as much information about the code setup as more seasoned volunteers. Most of the open issues were created by the owner of *OpenPetra*. Having an idea of where the problems were originating might have led to the nondescript bug reports. Our team, however, was new to *OpenPetra*. To be productive, we learned that we sometimes needed to ask for clarification.

## Conclusion

We were able to close three issues and have begun to contribute to a new feature. Our work with OpenPetra has exposed us to even more of open-source development. We already had experience testing code from HFOSS projects. During this project, we actually got involved with the other developers and contributed to solutions. It has been a great learning experience dealing with external projects and the pressure of being involved in a real-world application.