

# Guide for ADAM Local Setup

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## Environment:

- Python3.7 required
- Django 2.0+
- Django-background-tasks 1.2.5 <https://django-background-tasks.readthedocs.io/en/latest/#>
- Django-extensions 3.0.8 <https://django-extensions.readthedocs.io/en/latest/#>
- Django-MySQL 3.8.1 <https://django-mysql.readthedocs.io/en/latest/>
- Django-storages (optional) 1.10.1 <https://django-storages.readthedocs.io/en/latest/>

## Database setup:

- MySQL: create a database ('adam' by default)
- MySQL: create a user who has all privileges to 'adam'
- If not using MySQL, make sure the database has a module in Django which supports storing python lists (for MySQL, please see <https://django-mysql.readthedocs.io/en/latest/index.html>)

## Optimization setup:

- Download and install Julia (version 1.1 recommended, <https://julialang.org/downloads/oldreleases/>)
- Install Julia package JuMP, Clp, and Cbc by running:  
\$ julia  
julia> using Pkg;  
julia> Pkg.add("JuMP");  
julia> Pkg.add("Clp");  
julia> Pkg.add("Cbc");
- Take a record of the path to Julia.

## Modify settings.py

- If not host on AWS, deactivate line 14:  
`#from ADAM.aws.conf import *`  
Otherwise set up AWS keys and s3
- Replace the Django security key with a random string including 50 characters in line 24
- Add hosts in line 29:  
`ALLOWED_HOSTS = ['127.0.0.1', 'localhost']` # add any other applicable address
- Edit line 83-93: Enter the database name ('adam' by default), username, password, and host. MySQL is used during the development of ADAM.
- Edit line 155-160: Enter email host, email user and password. Outlook email is used during the development.

## Change settings in other scripts (sorry for not using a global variable):

- ADAM/ADAM/views.py line 224-235, change the email setting
- ADAM/main/tasks.py line 16-21, change the email setting
- ADAM/check.py line 57-61, 98-102, change the email setting
- ADAM/check.py line 38, change the path to Julia result folder
- ADAM/main/tasks.py line 40, include the path to Julia here
- ADAM/croncheck, change the path to ADAM here

## Load project and run:

- \$ python manage.py migrate
- \$ python manage.py runserver 8000

- Open another screen and start to process background tasks:  
\$ python3 manage.py process\_tasks
- Put the croncheck file into crontab to check model status periodically:  
\$ crontab croncheck

**Create an adminnuser:**

- Please follow steps here <https://docs.djangoproject.com/en/1.8/intro/tutorial02/>