

Homework Zero Tutorial

IE 360 - Spring 2021

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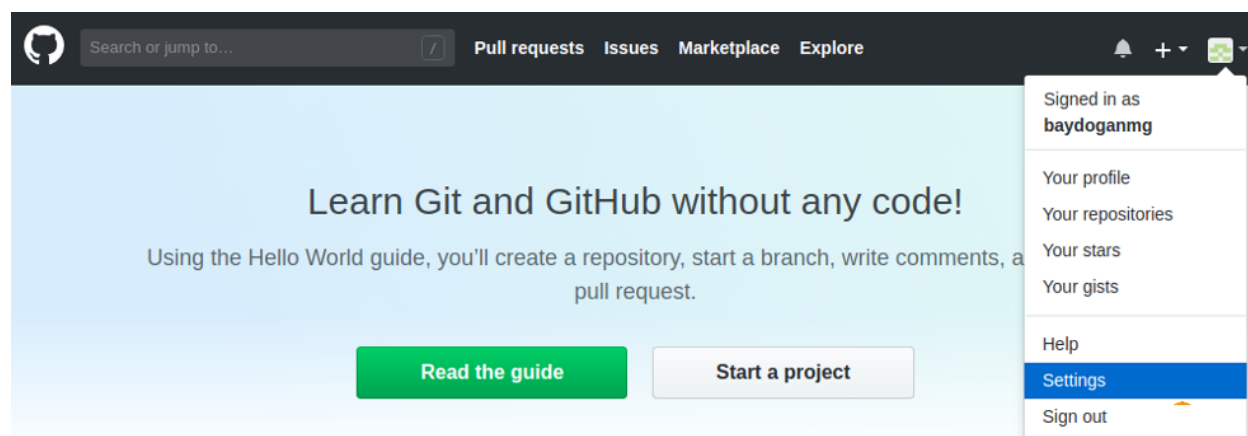
1 Contributors

This document is originally prepared by Berk Orbay (berkorbay@gmail.com) and customized by Mustafa Gokce Baydogan (mustafa.baydogan@boun.edu.tr) for education purposes. The screenshots to illustrate the steps can be outdated as they were prepared for Spring 20 semester. Some of the menu items shown on the screenshots may have been changed by Github. However the tasks are still doable, use the the related forum topic on Moodle in case you have questions/problems. This homework assumes that you have R and RStudio installed.

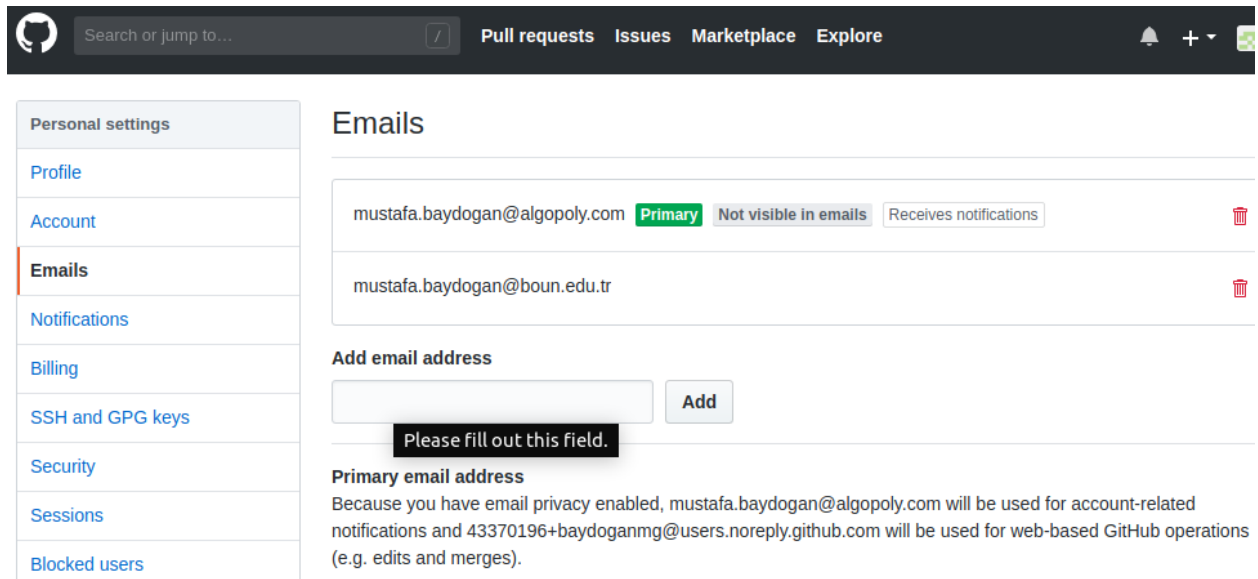
2 Step 0: Create a GitHub Account and Accept Homework Link

1. Open github.com
2. Create an account.
3. If you already have one, add your @boun.edu.tr email to the email addresses.

Example screenshot.



Example screenshot.

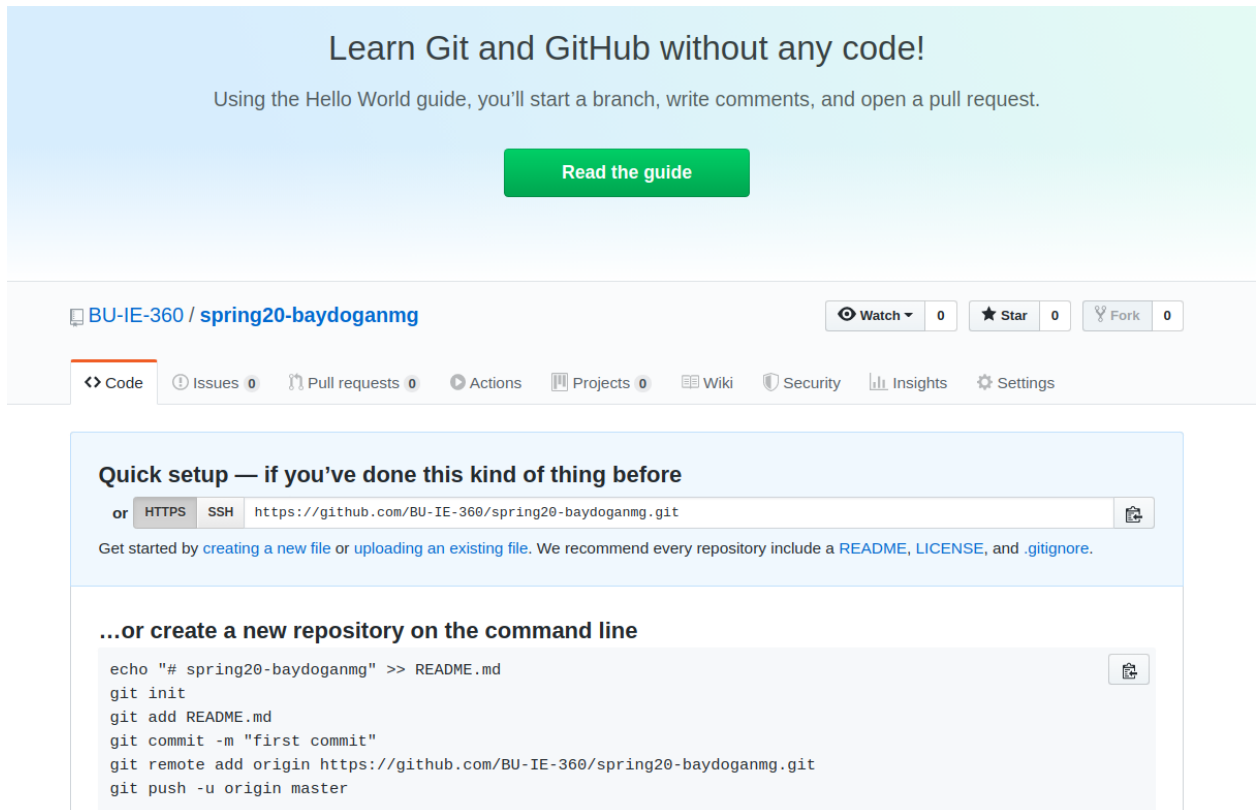


The screenshot shows the GitHub account settings page, specifically the 'Emails' section. On the left is a sidebar with navigation links: Personal settings, Profile, Account, Emails (highlighted), Notifications, Billing, SSH and GPG keys, Security, Sessions, and Blocked users. The main content area is titled 'Emails' and lists two email addresses: mustafa.baydogan@algopoly.com (marked as Primary, Not visible in emails, and Receives notifications) and mustafa.baydogan@boun.edu.tr. Below the list is a section 'Add email address' with an input field and an 'Add' button. A tooltip 'Please fill out this field.' is visible over the input field. At the bottom, there is a section 'Primary email address' explaining that mustafa.baydogan@algopoly.com will be used for account-related notifications, and 43370196+baydoganmg@users.noreply.github.com will be used for web-based GitHub operations.

4. Enter the link to the browser and create your repository from there.

The link: <https://classroom.github.com/a/d1zjYGx8>

Your repository will be BU-IE-360/spring21-<YOUR_GITHUB_USERNAME>



The screenshot shows the GitHub repository creation page. At the top, there is a banner with the text 'Learn Git and GitHub without any code!' and 'Using the Hello World guide, you'll start a branch, write comments, and open a pull request.' Below the banner is a green button labeled 'Read the guide'. The main content area shows the repository name 'BU-IE-360 / spring20-baydoganmg' with options to Watch, Star, and Fork. Below this is a navigation bar with links to Code, Issues, Pull requests, Actions, Projects, Wiki, Security, Insights, and Settings. The 'Quick setup' section provides a URL for cloning the repository: https://github.com/BU-IE-360/spring20-baydoganmg.git. Below this is a section '...or create a new repository on the command line' with a code block containing the following commands: echo "# spring20-baydoganmg" >> README.md, git init, git add README.md, git commit -m "first commit", git remote add origin https://github.com/BU-IE-360/spring20-baydoganmg.git, and git push -u origin master.

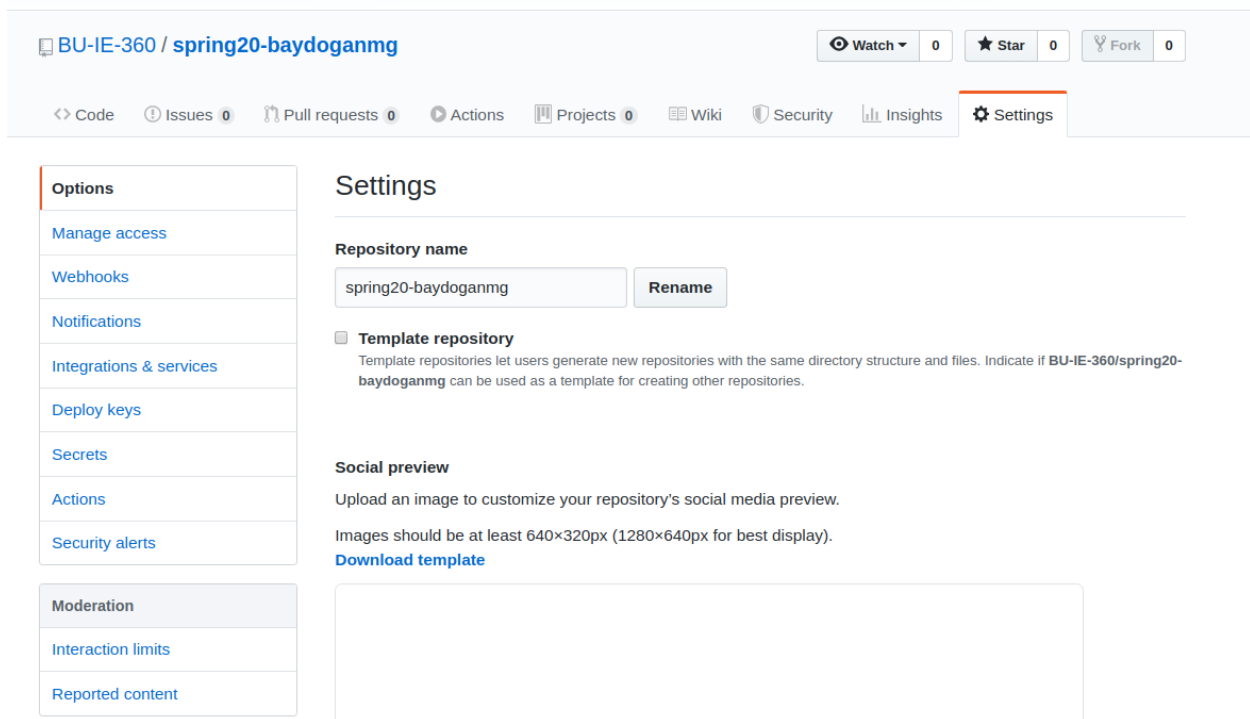
3 Step 1: Download GitHub Desktop or GitKraken and Clone Your Repository

1. Visit [GitHub Desktop website](#), download (Mac/Windows) and install. GitHub Desktop is not available for Linux distributions. I would recommend [GitKraken](#) which is multi-platform.
2. GitHub Desktop instructions: Open GH Desktop and login. Clone your repository to your computer. Locate your repository. It will include starter files if there is any.
3. GitKraken instructions: Open GitKraken. Sign-in with GitHub in welcome screen. Authorize using your browser. You can follow the instruction in the [link](#) and clone your repository to your computer. It will include starter files if there is any.

If you have trouble in performing these tasks, you can have a look at the following YouTube Tutorials: [GH](#) and [GitKraken](#)

4 Step 2: Set Up Your GitHub Pages Website

1. You are going to this only once. Go to your repository. Click on Settings.



3. Scroll down to GitHub Pages. Click on “Choose a theme button” and choose the theme you want to use for your webpage.

GitHub Pages

GitHub Pages is designed to host your personal, organization, or project pages from a GitHub repository.

Source

GitHub Pages is currently disabled. You must first add content to your repository before you can publish a GitHub Pages site. [Learn more.](#)

None ▾

Theme Chooser

Select a theme to publish your site with a Jekyll theme using the `master` branch. [Learn more.](#)

Choose a theme



Hide thumbnails

Select theme

Cayman theme

Cayman is a clean, responsive theme for GitHub Pages.

View on GitHub

Download .zip

Download .tar.gz

4. Make sure that “source” is selected as master branch.

GitHub Pages

GitHub Pages is designed to host your personal, organization, or project pages from a GitHub repository.

Your site is ready to be published at <https://bu-ie-360.github.io/spring20-baydoganmg/>.

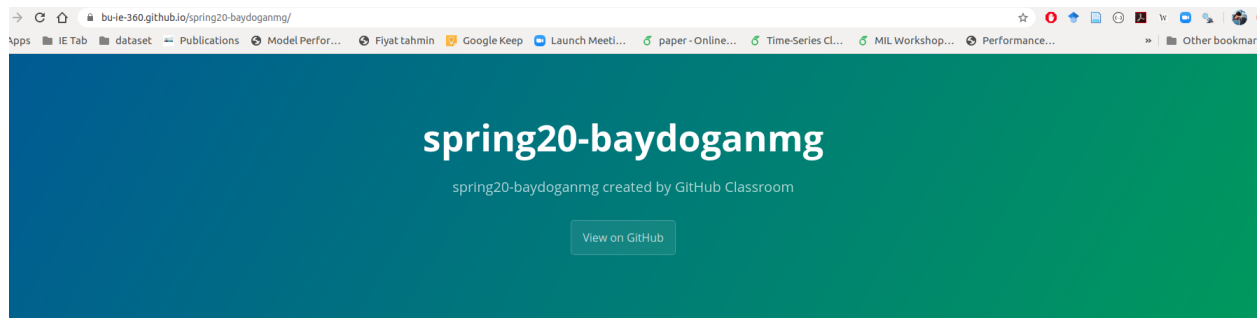
Source
Your GitHub Pages site is currently being built from the master branch. [Learn more.](#)

master branch ▾

Theme Chooser
Select a theme to publish your site with a Jekyll theme. [Learn more.](#)
Your site is currently using the Cayman theme.

Change theme

5. Visit your webpage to check if your template page is there.



Welcome to GitHub Pages

You can use the [editor on GitHub](#) to maintain and preview the content for your website in Markdown files.

Whenever you commit to this repository, GitHub Pages will run [Jekyll](#) to rebuild the pages in your site, from the content in your Markdown files.

Markdown

Markdown is a lightweight and easy-to-use syntax for styling your writing. It includes conventions for

Syntax highlighted code block

```
# Header 1
## Header 2
### Header 3

- Bulleted
- List
```

5 Step 3: Do the Homework

1. Download homework example from [Moodle](#). This will be an Rmd file.

```

1 ---
2 title: "Interesting Forecasting Applications with R"
3 author: Name Surname - IE360 - Spring 2020
4 ---
5 {r,echo=FALSE,results="hide"}
6 library(knitr)
7 opts_chunk$set(tidy.opts=list(width.cutoff=60),tidy=TRUE)
8
9
10 {r,echo=FALSE,eval=FALSE}
11 rmarkdown::render("/home/baydogan/Courses/IE360/Guidelines/example_homework_0.Rmd",output_format="pdf_document")
12 rmarkdown::render("/home/baydogan/Courses/IE360/Guidelines/example_homework_0.Rmd",output_format="html_document")
13
14
15 1. [Time series forecasting using ARIMA models](https://blogs.oracle.com/datascience/introduction-to-forecasting-with-arima-in-r)
16
17 This example is important because it introduces the forecasting methodology using ARIMA models in R. The steps are ...|
18

```

2. Open RStudio as in the screenshot above. Make sure you installed [pandoc](#).
3. Open example homework file, change name surname and fill your five examples.
4. Knit to HTML. Find where you saved the file.



5. Add it under files (create a directory named as “files” under your local repository if you do not have it.). Suppose my homework html file name is interesting_examples.html. Note that you create a repository under your local file systems using Github Desktop or Gitkraken. Go to the directory using your file explorer and create a new directory named “files”. Move to your html file under “files” directory. Github Desktop or Gitkraken will recognize the changes in your local repo. You need to stage the files, commit the changes and push to your Github repo which is online. If you have difficulty in any of these, please watch the videos on the youtube links provided before in the installation part of Github Desktop or Gitkraken.

config.yml	Today 14:35	112 bytes	YAML...cument
files	Today 14:49	--	Folder
interesting_examples.html	Today 14:35	711 KB	HTML
index.md	Today 14:35	123 bytes	Markd...cument

6. Edit your index.md and __config.yml files. (You can use Atom editor or any other text editor including Notepad).

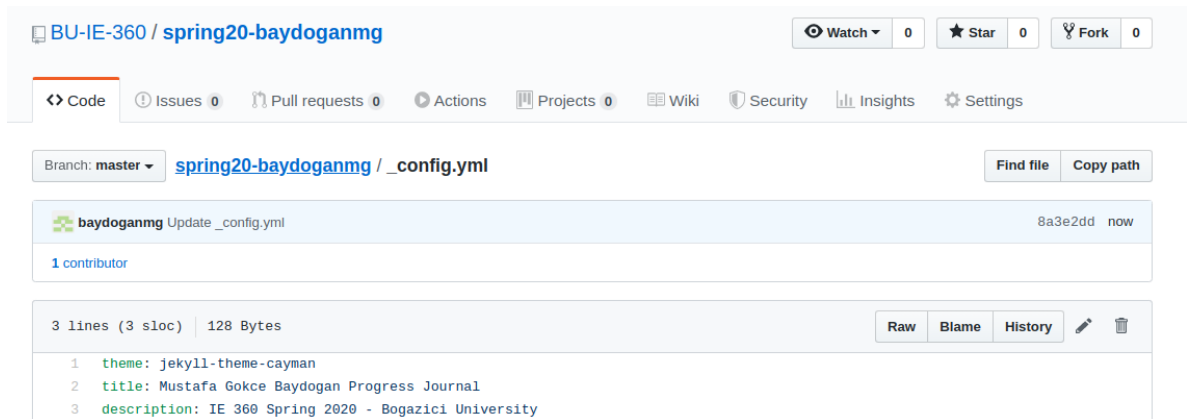
index.md: make sure your path and file name is correct.

```

1 # Example Progress Journal
2
3 ## Week 0 (September 19)
4
5 [Here](files/interesting_examples.html) is my 5 interesting R examples
6

```

config.yml: make sure you changed name and surname to yours.

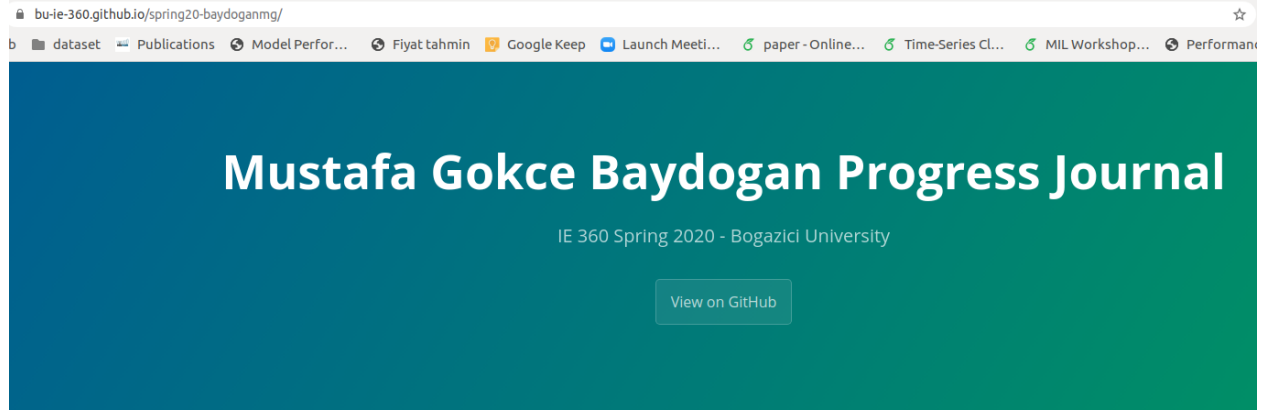


6 Step 4: Commit and Sync

1. No matter which tool you use (i.e. GH Desktop or GitKraken). Click on your repository, you should have some changes.
2. Write something to the commit title. Commit and then sync (make sure you committed all the changes first).
3. You are going to repeat this step every time you changed something in this repository.

7 Step 5: Celebrate!

Congratulations! You just managed to handle Git, GitHub, GitHub Classroom, GitHub Desktop or GitKraken, GitHub Pages and RMarkdown like a boss.



Example Progress Journal

Week 0 (February 18th)

[Here](#) is my 5 interesting R examples.

spring20-baydoganmg is maintained by **BU-IE-360**.
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