



# LyricLink

Song Recommendation System: Installation Guide

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# Introduction

Welcome to the installation guide for the Song Recommender application!

This document provides step-by-step instructions on how to install the Song Recommender on your local machine using two methods: using git clone and directly downloading the code.

If you prefer using git, you can follow the instructions to clone the repository from the GitHub repository.

Alternatively, if you prefer downloading the code directly, you can do so by accessing the project's GitHub page and downloading the code as a zip file.

Regardless of the method you choose, this guide will walk you through the installation process, ensuring that you have everything set up and ready to go in no time.

Once the installation is complete, you'll be all set to start using the Song Recommender and explore its features to discover new music and receive personalized song recommendations.

Before following through either of the paths, make sure to install [Docker](#) on your system.

Click here to view the installation guide of [Docker Desktop](#).

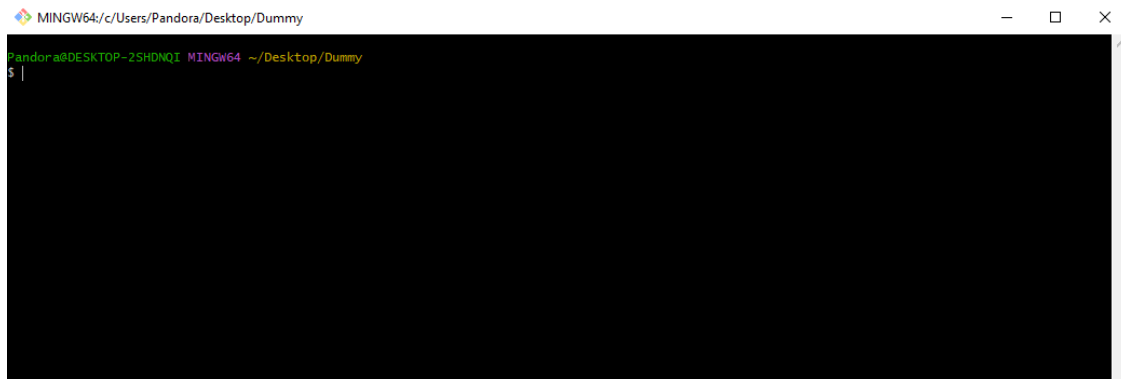
*For Project guide and User guide, refer to ReadMe.pdf and UseMe.pdf respectively.*

## Installation Using Git Clone

In this section we will see how to install Song Recommender using git clone command.


Before moving through, make sure you have git installed in your system. Click [here](#) to view the installation guide of [Git](#).

1. Open a preferred directory where you want to store the source code files of the project. (Empty directory is most preferred to avoid any name conflicts.)
2. Now open a terminal and navigate to the directory.

A terminal window titled 'MINGW64:/c/Users/Pandora/Desktop/Dummy' with standard window controls. The prompt shows the user is at 'Pandora@DESKTOP-2SHDNQI MINGW64 ~/Desktop/Dummy' with a '\$' prompt and a cursor on the next line.

```
MINGW64:/c/Users/Pandora/Desktop/Dummy
Pandora@DESKTOP-2SHDNQI MINGW64 ~/Desktop/Dummy
$ |
```

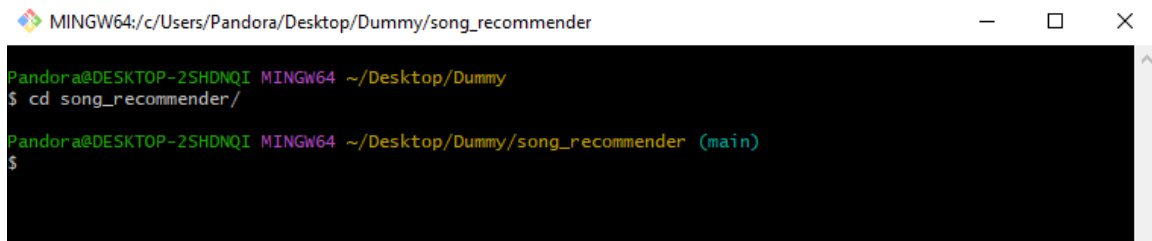
3. Run the following command to create a git clone of the project.  
*git clone https://github.com/prashant-singh-2001/song\_recommender.git*

A terminal window titled 'MINGW64:/c/Users/Pandora/Desktop/Dummy' with standard window controls. The prompt shows the user is at 'Pandora@DESKTOP-2SHDNQI MINGW64 ~/Desktop/Dummy'. The command 'git clone https://github.com/prashant-singh-2001/song\_recommender.git' has been executed, resulting in a series of status messages and a new directory 'song\_recommender' being created.

```
MINGW64:/c/Users/Pandora/Desktop/Dummy
Pandora@DESKTOP-2SHDNQI MINGW64 ~/Desktop/Dummy
$ git clone https://github.com/prashant-singh-2001/song_recommender.git
Cloning into 'song_recommender'...
remote: Enumerating objects: 218, done.
remote: Counting objects: 100% (218/218), done.
remote: Compressing objects: 100% (156/156), done.
remote: Total 218 (delta 97), reused 168 (delta 52), pack-reused 0
Receiving objects: 100% (218/218), 32.80 MiB | 5.01 MiB/s, done.
Resolving deltas: 100% (97/97), done.
Pandora@DESKTOP-2SHDNQI MINGW64 ~/Desktop/Dummy
$
```

4. Navigate to root directory.

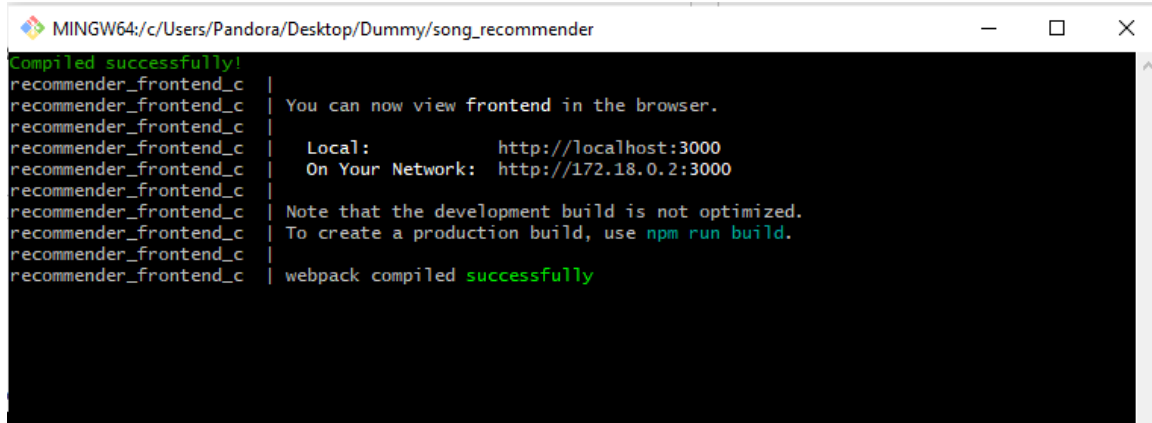
```
cd song_recommender
```



A terminal window titled 'MINGW64: c:/Users/Pandora/Desktop/Dummy/song\_recommender'. The prompt is 'Pandora@DESKTOP-2SHDNQI MINGW64 ~/Desktop/Dummy'. The user enters '\$ cd song\_recommender/'. The prompt changes to 'Pandora@DESKTOP-2SHDNQI MINGW64 ~/Desktop/Dummy/song\_recommender (main)'. The user enters '\$'.

5. Run Docker compose command to start the project.

```
docker compose up
```

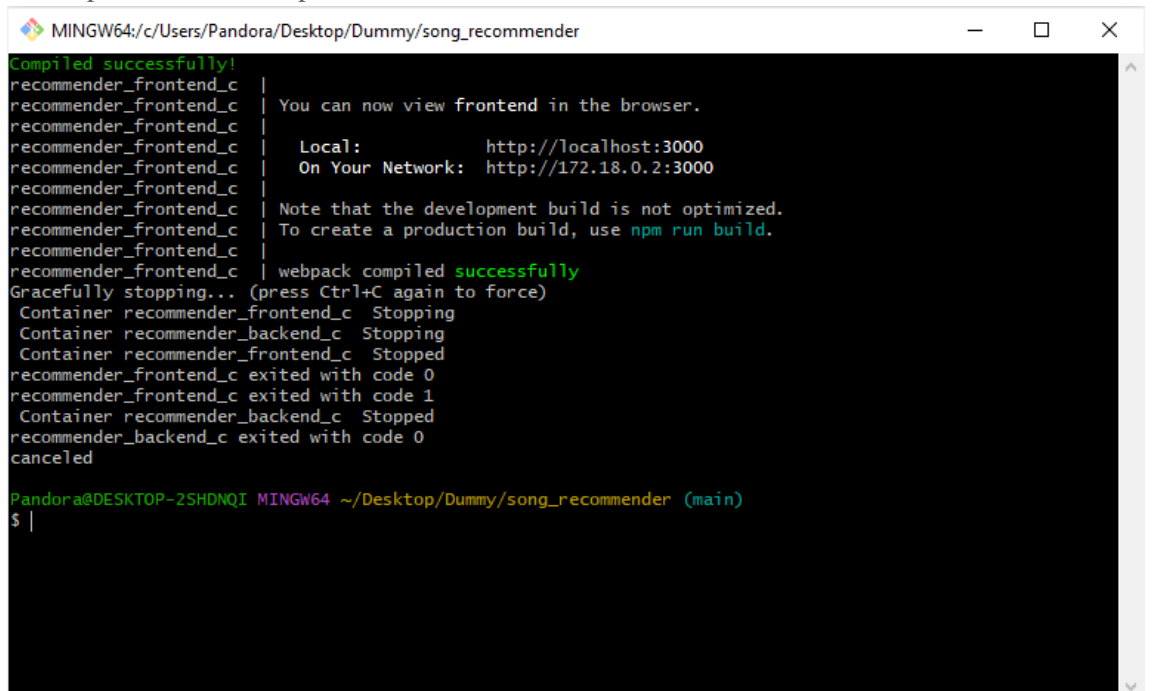


A terminal window titled 'MINGW64: c:/Users/Pandora/Desktop/Dummy/song\_recommender'. The output of 'docker compose up' is shown. It starts with 'Compiled successfully!'. Then, for 'recommender\_frontend\_c', it says 'You can now view frontend in the browser.' followed by 'Local: http://localhost:3000' and 'On Your Network: http://172.18.0.2:3000'. A note states: 'Note that the development build is not optimized. To create a production build, use npm run build.' Finally, it says 'webpack compiled successfully'.

6. Access the application:

The application is accessible in your web browser at 'http://localhost:3000'.

7. To stop the execution, press 'Ctrl/Command + C' on the terminal.

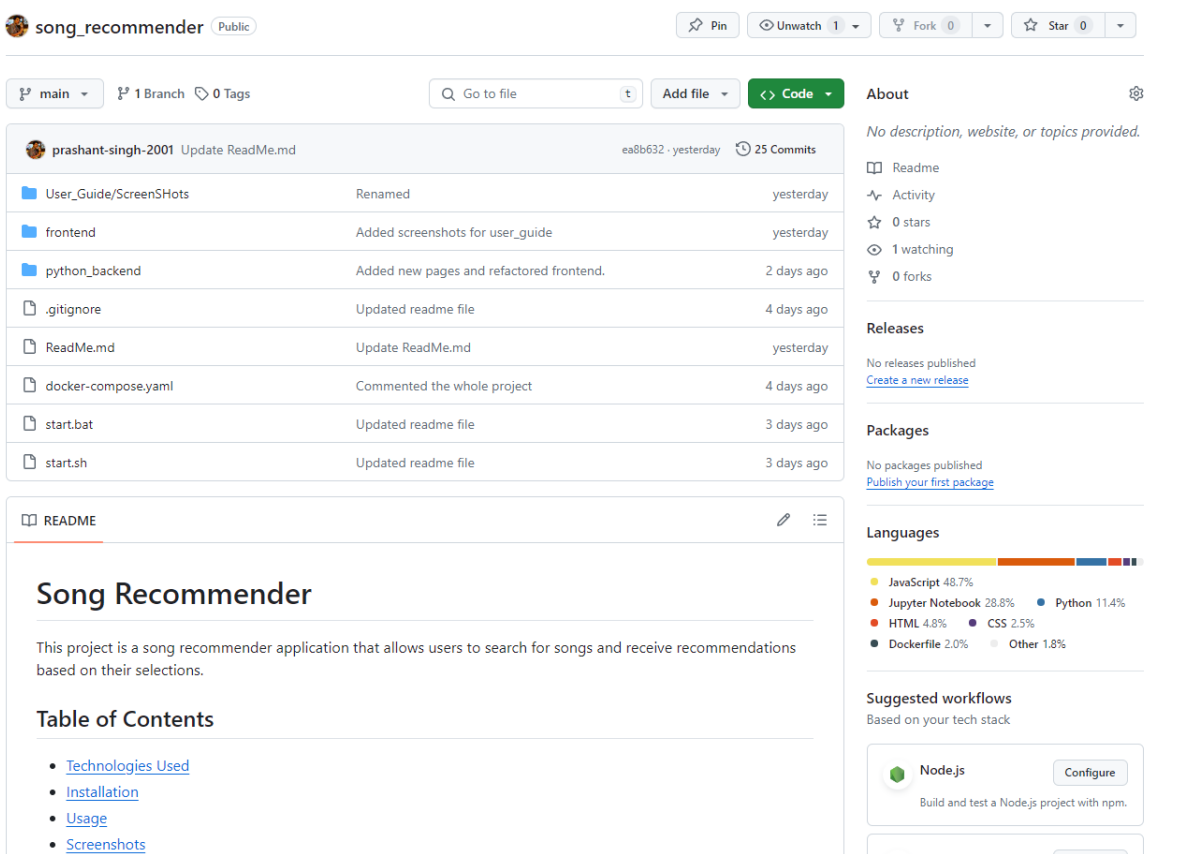


A terminal window titled 'MINGW64: c:/Users/Pandora/Desktop/Dummy/song\_recommender'. The output shows the application running. When Ctrl+C is pressed, it says 'Gracefully stopping... (press Ctrl+C again to force)'. It then shows 'Container recommender\_frontend\_c Stopping', 'Container recommender\_backend\_c Stopping', 'Container recommender\_frontend\_c Stopped', 'recommender\_frontend\_c exited with code 0', 'recommender\_frontend\_c exited with code 1', 'Container recommender\_backend\_c Stopped', 'recommender\_backend\_c exited with code 0', and 'canceled'. The prompt returns to 'Pandora@DESKTOP-2SHDNQI MINGW64 ~/Desktop/Dummy/song\_recommender (main)'. The user enters '\$'.

# Installation without using Git Clone

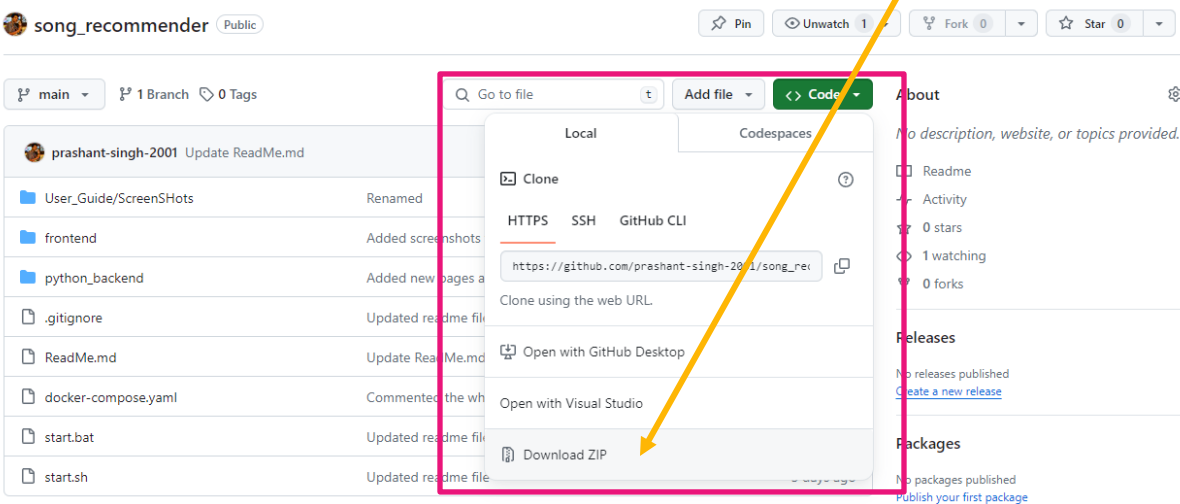
In this section we will see how to install Song Recommender without using git clone command.

1. Click [here](#) to visit the GitHub repository of the project.



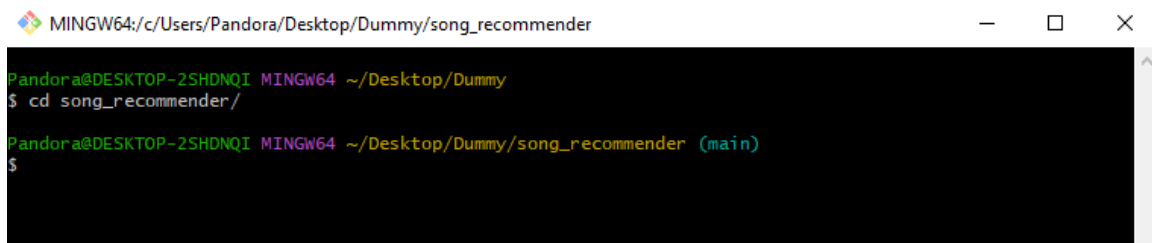
The screenshot shows the GitHub repository page for 'song\_recommender' by user 'prashant-singh-2001'. The repository is public and has 1 branch and 0 tags. The file list includes 'User\_Guide/ScreenSHots', 'frontend', 'python\_backend', '.gitignore', 'ReadMe.md', 'docker-compose.yaml', 'start.bat', and 'start.sh'. The README section is titled 'Song Recommender' and describes the project as a song recommender application. The 'Code' button is highlighted with a green box.

2. Click on the 'Code' button to open the dropdown menu and select 'Download Zip' to download the source code of the project.



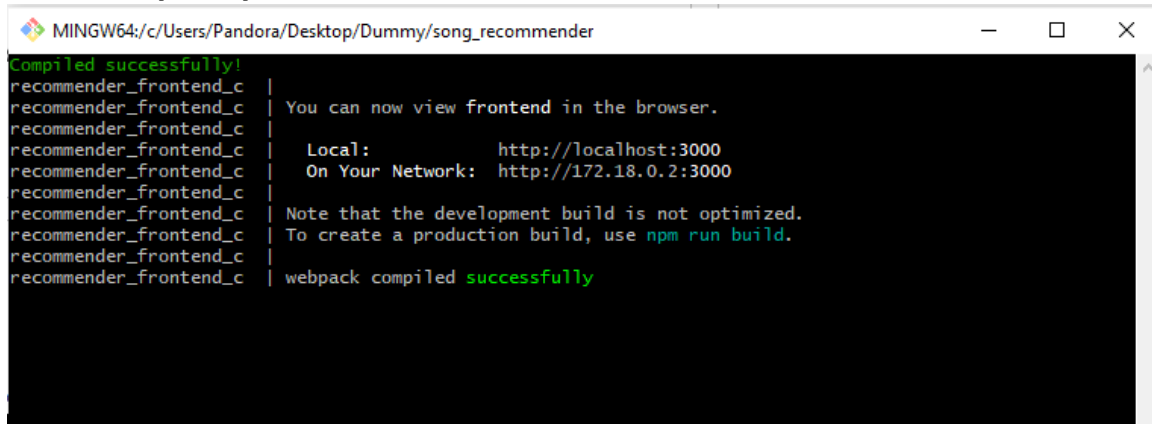
The screenshot shows the same GitHub repository page, but with the 'Code' button clicked, opening a dropdown menu. The 'Download ZIP' option is highlighted with a yellow arrow. The dropdown menu also shows options for cloning the repository using HTTPS, SSH, or GitHub CLI, and options to open the repository with GitHub Desktop or Visual Studio.

- Once the zip file is downloaded, extract it to any folder of choice.
- Open a terminal and navigate to root directory.  
`cd [./Directory]song_recommender`



```
MINGW64/c/Users/Pandora/Desktop/Dummy/song_recommender
Pandora@DESKTOP-2SHDNQI MINGW64 ~/Desktop/Dummy
$ cd song_recommender/
Pandora@DESKTOP-2SHDNQI MINGW64 ~/Desktop/Dummy/song_recommender (main)
$
```

- Run Docker compose command to start the project.  
`docker compose up`

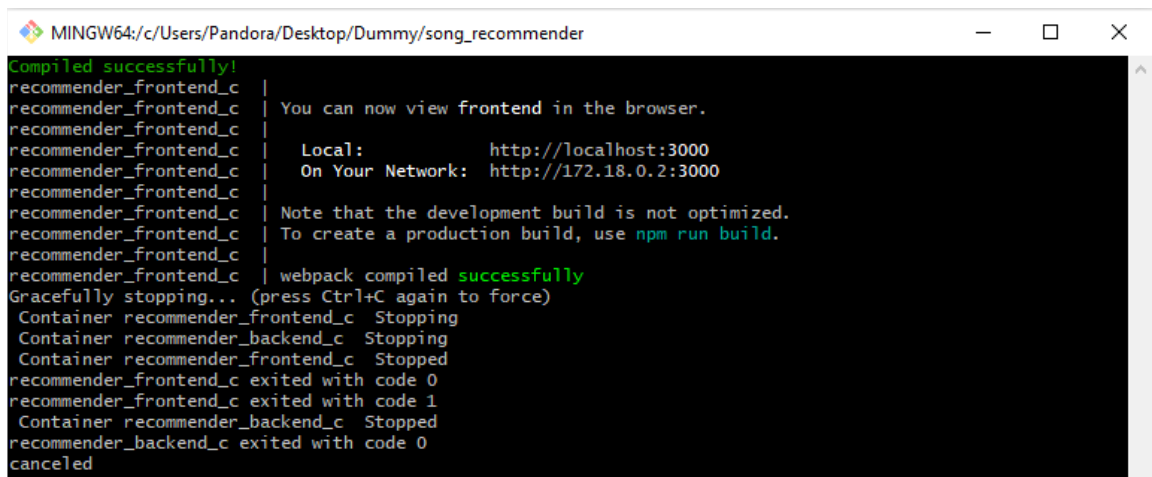


```
MINGW64/c/Users/Pandora/Desktop/Dummy/song_recommender
Compiled successfully!
recommender_frontend_c | You can now view frontend in the browser.
recommender_frontend_c |
recommender_frontend_c |   Local:           http://localhost:3000
recommender_frontend_c |   On Your Network: http://172.18.0.2:3000
recommender_frontend_c |
recommender_frontend_c | Note that the development build is not optimized.
recommender_frontend_c | To create a production build, use npm run build.
recommender_frontend_c |
recommender_frontend_c | webpack compiled successfully
```

- Access the application:

The application is accessible in your web browser at 'http://localhost:3000'.

- To stop the execution, press 'Ctrl/Command + C' on the terminal.



```
MINGW64/c/Users/Pandora/Desktop/Dummy/song_recommender
Compiled successfully!
recommender_frontend_c | You can now view frontend in the browser.
recommender_frontend_c |
recommender_frontend_c |   Local:           http://localhost:3000
recommender_frontend_c |   On Your Network: http://172.18.0.2:3000
recommender_frontend_c |
recommender_frontend_c | Note that the development build is not optimized.
recommender_frontend_c | To create a production build, use npm run build.
recommender_frontend_c |
recommender_frontend_c | webpack compiled successfully
Gracefully stopping... (press Ctrl+C again to force)
Container recommender_frontend_c Stopping
Container recommender_backend_c Stopping
Container recommender_frontend_c Stopped
recommender_frontend_c exited with code 0
recommender_frontend_c exited with code 1
Container recommender_backend_c Stopped
recommender_backend_c exited with code 0
canceled
```

## Credits

- This project was developed by Prashant Singh. I would like to thank the creators and maintainers of the following technologies and libraries used in this project:
  - FastAPI
  - React.js
  - scikit-learn
  - NLTK
  - Docker
- Special thanks to technical director and hiring staff at JTP Ltd. Co. for their valuable review and comments.



## References

- For more information on the technologies and libraries used in this project, refer to the following documentation:
  - [FastAPI Documentation](#)
  - [React.js Documentation](#)
  - [scikit-learn Documentation](#)
  - [NLTK Documentation](#)
  - [Docker Documentation](#)
- To explore the dataset, follow the given link
  - [Spotify Million Song Dataset](#)