

Laporan Teknis Deployment WebApp untuk Menganalisis Data dengan Metode Stepwise Regression



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1. Pendahuluan

Stepwise Regression adalah sebuah metode statistik yang digunakan dalam analisis regresi untuk membangun model yang memprediksi hubungan antara variabel dependen dan satu atau lebih variabel independen. Dalam laporan ini, kami merancang aplikasi pada infrastruktur *cloud computing* dengan menggunakan layanan microsoft azure untuk mengelola website yang akan dibuat sebagaimana mengeluarkan hasil outputnya berupa *webapp*. *Webapp* sendiri merupakan singkatan dari “*web application*” yang merujuk pada perangkat lunak atau program komputer yang dijalankan di *server web* dan dapat diakses secara menyeluruh pada platform browser pengguna. Pengembangan aplikasi *web* yang sukses tidak hanya melibatkan proses pembuatan kode dan pengujian, tetapi juga memerlukan penyebaran yang tepat dan efisien untuk memastikan bahwa aplikasi tersebut dapat diakses oleh pengguna akhir dengan mudah dan aman.

kami akan membahas langkah-langkah yang diperlukan untuk melakukan deployment sebuah *Webapp* menggunakan layanan Microsoft Azure, mulai dari persiapan awal hingga tahap peluncuran (release). *Highlight* utama dalam layanan Microsoft Azure yang digunakan yaitu adalah layanan Webapp. Dengan pemahaman yang baik tentang proses deployment menggunakan Microsoft Azure dan praktik terbaik dalam merilis layanan perangkat lunak, diharapkan para pengembang dapat mengelola proses ini dengan lebih efisien dan efektif, sehingga dapat menghadirkan aplikasi web yang berkualitas tinggi kepada pengguna akhir.

2. Proses Deployment

1. Buatlah resource group pada Azure
2. Buatlah Web App di App Services pada Azure
3. Siapkan akun github yang sudah diisi dengan file program pada repository github
4. Setting deployment menjadi continous deployment karena kita akan menggunakan github
5. Pilihlah repository github yang ingin di deploy, setelah itu pilih create
6. Setelah selesai deployment, bukalah Web App yang telah dibuat untuk setting configuration
7. Setelah setting configuration, selanjutnya setting envirotnment variables
8. Setelah setting envirotnment, pilih deployment center untuk melihat hasil deployment
9. Ketika deployment sudah berhasil, pilih overview untuk melihat link websites, perhatikan bagian Start - Swap - Restart untuk menjalankan websites
10. Cek pada link tertera untuk melihat websites sudah berhasil dijalankan

3. Dokumentasi

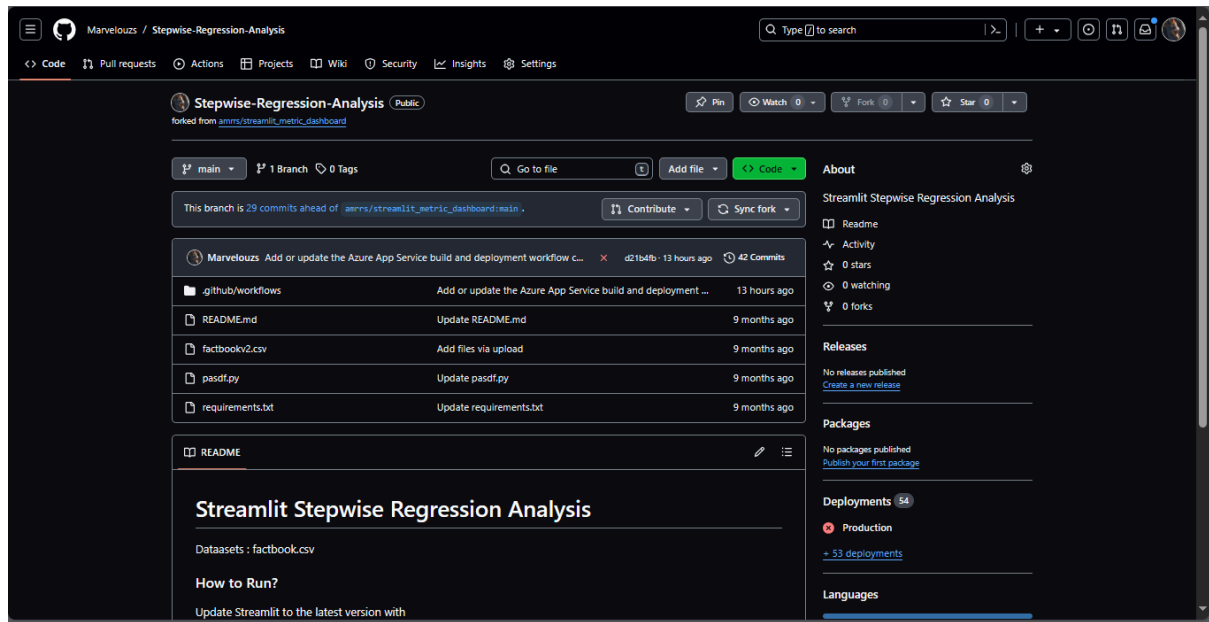
buat resource group pada azure

The screenshot shows the 'Create a resource group' page in the Microsoft Azure portal. The page has a blue header with the Microsoft Azure logo and a search bar. Below the header, there's a breadcrumb trail: Home > Resource groups >. The main heading is 'Create a resource group'. There are three tabs: Basics, Tags, and Review + create. The Basics tab is selected. A description of a resource group is provided. The 'Project details' section has two fields: 'Subscription' (set to 'Azure for Students') and 'Resource group' (empty). The 'Resource details' section has one field: 'Region' (set to '(US) East US'). At the bottom, there are three buttons: 'Review + create', '< Previous', and 'Next : Tags >'.

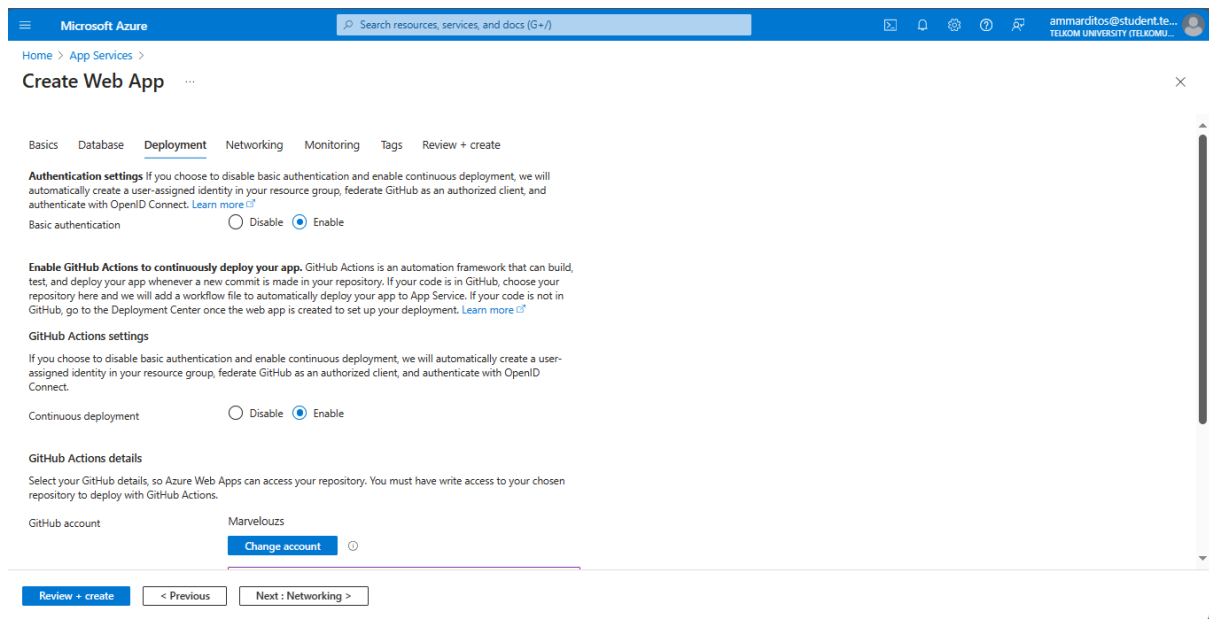
buat web app pada azure di bagian layanan app services

The screenshot shows the 'Create Web App' page in the Microsoft Azure portal. The page has a blue header with the Microsoft Azure logo and a search bar. Below the header, there's a breadcrumb trail: Home > App Services >. The main heading is 'Create Web App'. There are six tabs: Basics, Database, Deployment, Networking, Monitoring, and Tags. The Basics tab is selected. A description of App Service Web Apps is provided. The 'Project Details' section has two fields: 'Subscription' (set to 'Azure for Students') and 'Resource Group' (set to 'TCC2' with a 'Create new' link below it). The 'Instance Details' section has four fields: 'Name' (set to 'stepwisereg'), 'Publish' (set to 'Code'), 'Runtime stack' (set to 'Python 3.12'), and 'Operating System' (set to 'Linux'). At the bottom, there are three buttons: 'Review + create', '< Previous', and 'Next : Database >'.

setting github repository, upload file program yang ingin di deploy



setting continous deployment



Setting github repository

GitHub Actions details

Select your GitHub details, so Azure Web Apps can access your repository. You must have write access to your chosen repository to deploy with GitHub Actions.

GitHub account Marvelouzs
[Change account](#) ⓘ

Organization * Marvelouzs

Repository * Stepwise-Regression-Analysis

Branch * main

Workflow configuration

File with the GitHub Actions workflow configuration.

[Preview file](#)

[Review + create](#) [< Previous](#) [Next : Networking >](#)

Deployment

Basic authentication	Enabled
Continuous deployment	Enabled
GitHub account	Marvelouzs
Organization	Marvelouzs
Repository	Stepwise-Regression-Analysis
Branch	main

[Create](#) [< Previous](#) [Next >](#) [Download a template for automation](#)

setting configuration pada web app

Microsoft Azure

Search resources, services, and docs (G+)

ammarditos@student.te...
TELKOM UNIVERSITY (TELKOMU)

Home > stepwisesreg

stepwisesreg | Configuration ☆ ...

Web App

Search

« Refresh Save Discard Leave Feedback

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Microsoft Defender for Cloud

Events (preview)

Deployment

Deployment slots

Deployment Center

Settings

Environment variables

Configuration

Authentication

Application Insights

Identity

Backups

Custom domains

Custom Error pages requires a premium App Service Plan.

Stack settings

Stack	Python
Major version	Python 3
Minor version	Python 3.8
Startup Command	<pre>python -m streamlit run pasdf.py -- server.port 8000 --server.address 0.0.0.0</pre>

Provide an optional startup command that will be run as part of container startup. [Learn more](#)

Platform settings

SCM Basic Auth Publishi...	<input checked="" type="radio"/> On <input type="radio"/> Off
FTP Basic Auth Publishi...	<input checked="" type="radio"/> On <input type="radio"/> Off
Disable basic authentication for FTP and SCM access. Learn more	
FTP state	FTPS only

FTP based deployment can be disabled or configured to accept FTP (plain text) or FTPS (secure) connections. [Learn more](#)

setting envirointment

The screenshot shows the 'Environment variables' page in the Microsoft Azure portal for a web app named 'stepwisesreg'. The left sidebar contains navigation links for Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Microsoft Defender for Cloud, Events (preview), Deployment (Deployment slots, Deployment Center), and Settings (Environment variables, Configuration, Authentication, Application Insights, Identity, Backups, Custom domains). The main content area is titled 'App settings' and 'Connection strings'. It features a search bar, 'Refresh', 'Show values', 'Advanced edit', and 'Fetch latest values' buttons. A table lists environment variables with columns for Name, Value, Deployment slot setting, Source, and Delete. One variable is shown: 'SCM_DO_BUILD_DURING_DEPLOYMENT' with a value of '.', set to 'True' for the deployment slot, and sourced from 'App Service'. Below the table are input fields for 'Enter name' and 'Enter value'. At the bottom are 'Apply' and 'Discard' buttons, and a 'Send us your feedback' link.

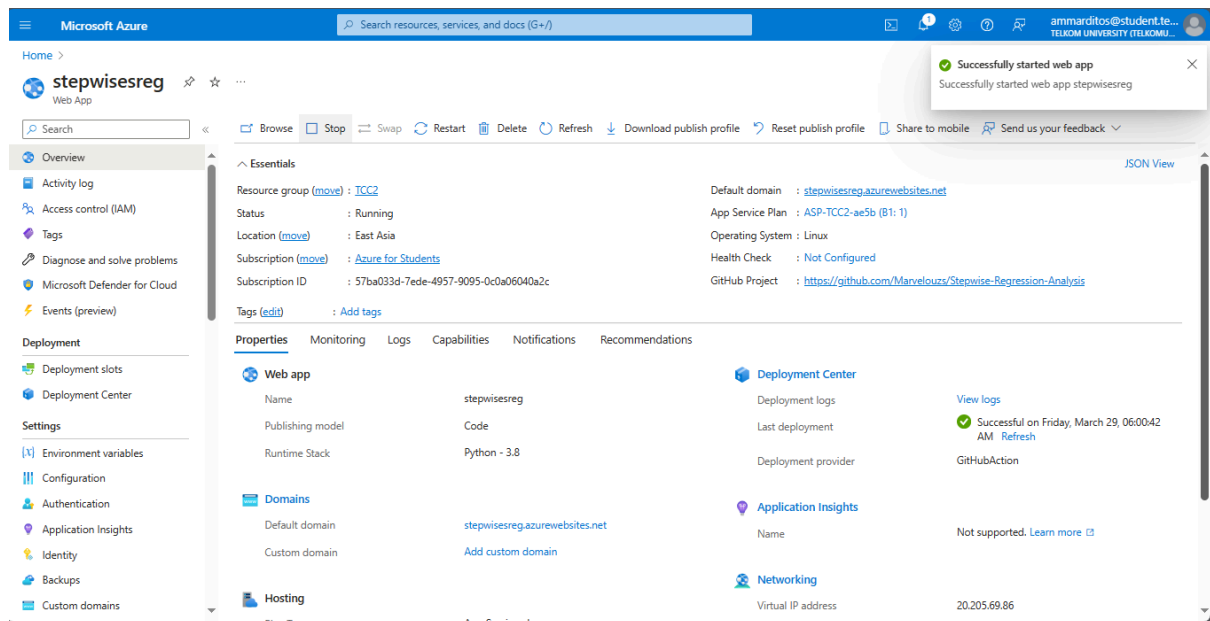
Name	Value	Deployment slot setting	Source	Delete
SCM_DO_BUILD_DURING_DEPLOYMENT	.	<input checked="" type="checkbox"/>	App Service	
<input type="text" value="Enter name"/>	<input type="text" value="Enter value"/>	<input type="checkbox"/>	App Service	

cek deployment yang dijalankan pada deployment center bagian logs

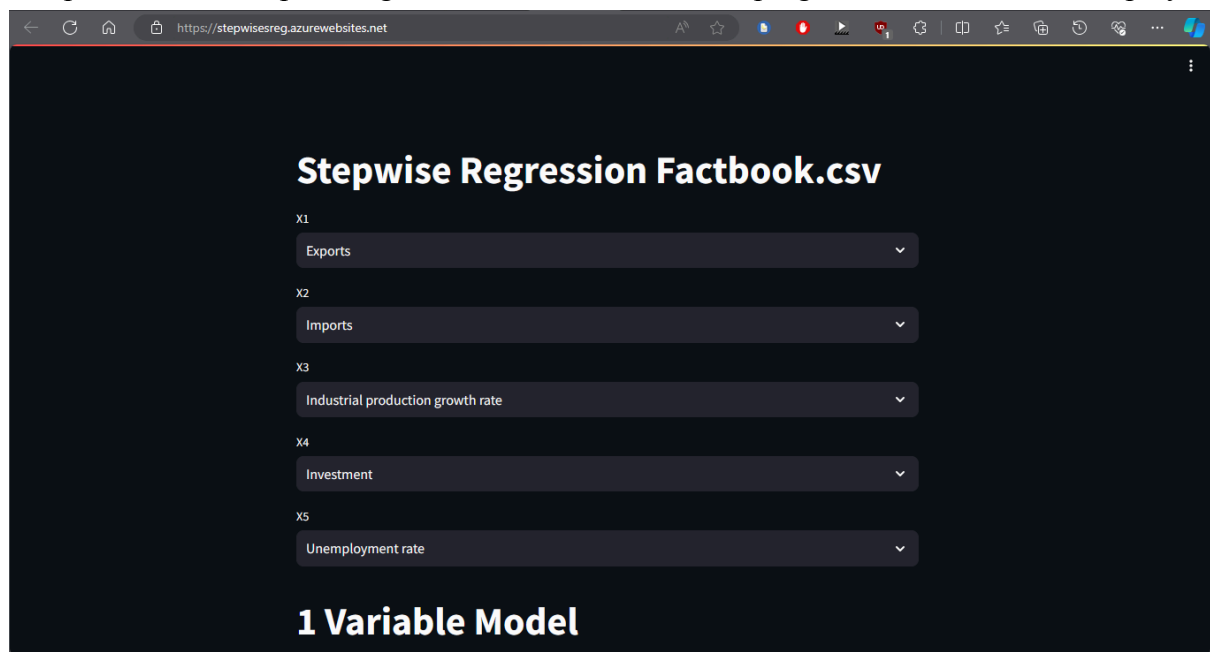
The screenshot shows the GitHub Actions workflow logs for a deployment to Azure Web App. The workflow is named 'Build and deploy Python app to Azure Web App - stepwisesreg'. The logs are displayed in a dark theme. The 'deploy' job is highlighted, showing a successful status. The logs include the following steps:

- Set up job** (5s):
 - 1. Current runner version: '2.314.1'
 - 2. Operating System
 - 6. Runner Image
 - 10. Runner Image Provisioner
 - 11. GitHub_TOKEN Permissions
 - 17. Secret source: Actions
 - 18. Prepare workflow directory
 - 19. Prepare all required actions
 - 20. Getting action download info
 - 21. Download action repository 'actions/download-artifact@v3' (SHA:9bc31d5ccc31df68ecc42ccf4149144866c47d8a)
 - 22. Download action repository 'azure/webapps-deploy@v2' (SHA:14bca08e4c7129e55923e9c45481b22dc6a996f)
 - 23. Complete job name: deploy
- Download artifact from build job** (1s):
 - 1. Run actions/download-artifact@v3
 - 4. Starting download for python-app
 - 5. Directory structure has been setup for the artifact
 - 6. Total number of files that will be downloaded: 1
 - 7. Artifact python-app was downloaded to /home/runner/work/Stepwise-Regression-Analysis/Stepwise-Regression-Analysis
 - 8. Artifact download has finished successfully
- Unzip artifact for deployment** (8s)
- Deploy to Azure Web App** (13m 25s)

Pada bagian overview, klik Start untuk menjalankan websites yang telah di deploy



Cek pada link tertera pada bagian overview untuk melihat program sudah berhasil di deploy



Link Video Presentasi & Screencast:

https://drive.google.com/drive/folders/1-qC0SVAoGIOra06Aw0MdnxYEvbVBcWO6?usp=s_haring.

