

# PRAKTIKUM MACHINE LEARNING DEPLOYMENT MODEL



`adult_klasifikasi_deployment.ipynb`

Eka Praja Wiyata Mandala, S.Kom, M,Kom, CADS

# Deployment Model

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## ✓ Load Google Drive

```
▶ # Define the variable  
folder_name = "/content/drive/My Drive/Colab Notebooks/Machine_Learning_IF5/01_adult_klasifikasi"
```

```
▶ from google.colab import drive  
drive.mount("/content/drive", force_remount=True)  
  
import sys  
sys.path.append(f'{folder_name}')
```

# Deployment Model

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## ✓ Load Library

```
▶ import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
pd.set_option('display.max_columns', None)
import joblib
```

## ✓ Baca Model Terbaik yang Disimpan Sebelumnya

```
▶ classifier_dt = joblib.load(f'{folder_name}/best_income_predictor_model.joblib')
```

```
▶ classifier_dt
```

# Deployment Model

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## ✓ Informasi yang dipakai

- age float64
- workclass int64
- fnlwgt float64
- education-num float64
- marital-status int64
- occupation int64
- relationship int64
- race int64
- sex int64
- hours-per-week float64
- native-country int64
- income

# Deployment Model

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## ✓ Masukkan **Age**

```
▶ age = float(input('Masukkan Age: '))
```

## ✓ Masukkan **Workclass**

```
▶ workclass = {'Never-worked':0, 'Without-pay':1, 'Self-emp-inc':2,  
              'Local-gov':3, 'Federal-gov':4, 'State-gov':5, 'Self-emp-not-inc':6,  
              'Private':7}  
  
print(workclass)
```

```
▶ workclass = int(input('Masukkan Workclass: '))
```

# Deployment Model

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## ✓ Masukkan **Final Weight**

```
[ ] fnlwgt = float(input('Masukkan Final Weight: '))
```

## ✓ Masukkan **Education**

```
▶ education = {'Preschool':1.0, '1st-4th':2.0, '5th-6th':3.0, '7th-8th':4.0, '9th':5.0, '10th':6.0, '11th':7.0, '12th':8.0, 'HS-grad':9.0, 'Some-college':10.0, 'Assoc-voc':11.0, 'Assoc-acdm':12.0, 'Bachelors':13.0, 'Masters':14.0, 'Prof-school':15.0, 'Doctorate':16.0}

print(education)
```

```
▶ education_num = float(input('Masukkan angka Education: '))
```

# Deployment Model

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## ✓ Masukkan Marital Status

```
▶ maritalstatus = {'Never-married':0, 'Married-civ-spouse':1, 'Divorced':2,  
                  'Married-spouse-absent':3, 'Widowed':4, 'Married-AF-spouse':5, 'Separated':6}  
  
print(maritalstatus)
```

```
▶ marital_status = int(input('Masukkan angka Marital Status: '))
```



# Deployment Model

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## ✓ Masukkan **Occupation**

```
▶ occupation = {'Adm-clerical':1, 'Exec-managerial':2, 'Handlers-cleaners':3,  
                'Prof-specialty':4, 'Other-service':5, 'Sales':6, 'Craft-repair':7,  
                'Transport-moving':8, 'Farming-fishing':9, 'Machine-op-inspct':10,  
                'Tech-support':11, 'Protective-serv':12, 'Armed-Forces':13,  
                'Priv-house-serv':14}  
  
print(occupation)
```

```
▶ occupation = int(input('Masukkan angka Occupation: '))
```



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## ▼ Masukkan Relationship

```
▶ relationship = {'Unmarried':0, 'Not-in-family':1, 'Husband':2, 'Wife':3,  
                  'Own-child':4, 'Other-relative':5}  
  
print(relationship)
```

```
▶ relationship = int(input('Masukkan angka Relationship: '))
```

# Deployment Model

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## ▼ Masukkan Race

```
▶ race = {'White':1, 'Black':2, 'Asian-Pac-Islander':3, 'Amer-Indian-Eskimo':4,  
         'Other':5}  
  
print(race)
```

```
▶ race = int(input('Masukkan angka Race: '))
```

# Deployment Model

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## ✓ Masukkan **Sex**

```
▶ sex = {'Female':0, 'Male':1}  
  
print(sex)
```

```
▶ sex = int(input('Masukkan angka Sex: '))
```

## ✓ Masukkan **Hours per Week**

```
▶ hours_per_week = float(input('Masukkan Hours Per Week: '))
```

# Deployment Model

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## ✓ Masukkan **Native Country**

```
▶ nativecountry ={'United-States':1, 'Cuba':2, 'Jamaica':3, 'India':4,  
'Mexico':5, 'South':6, 'Puerto-Rico':7, 'Honduras':8, 'England':9, 'Canada':10,  
'Germany':11, 'Iran':12, 'Philippines':13, 'Italy':14, 'Poland':15,  
'Columbia':16, 'Cambodia':17, 'Thailand':18, 'Ecuador':19, 'Laos':20,  
'Taiwan':21, 'Haiti':22, 'Portugal':23, 'Dominican-Republic':24,  
'El-Salvador':25, 'France':26, 'Guatemala':27, 'China':28, 'Japan':29,  
'Yugoslavia':30, 'Peru':31, 'Outlying-US(Guam-USVI-etc)':32, 'Scotland':33,  
'Trinidad&Tobago':34, 'Greece':35, 'Nicaragua':36, 'Vietnam':37, 'Hong':38,  
'Ireland':39, 'Hungary':40, 'Holand-Netherlands':41}  
  
print(nativecountry)
```

```
▶ native_country = int(input('Masukkan angka Native Country: '))
```

# Deployment Model

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## ✓ Proses Prediksi Data Baru

```
▶ pred_args = np.array([age,workclass,fnlwgt,education_num, marital_status,  
    occupation, relationship, race, sex, hours_per_week, native_country]).reshape  
    (1, -1)
```

```
▶ pred_args
```

```
▶ model_prediction = classifier_dt.predict(pred_args)[0]
```

```
▶ model_prediction
```

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# Deployment Model

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## ✓ Hasil Prediksi

```
▶ labels = {0:"<=50K", 1:">50K"}
```

```
▶ prediction = labels[model_prediction]  
print('Hasil Prediksi adalah:', prediction)
```