

AI BASED DIABETES PREDICTION SYSTEM

Development Phase 2: Deployment and Ongoing Management

1. *Feature Engineering* (Continuation from Phase 1):

You can continue to use the features engineered in Phase 1. Feature engineering is usually a one-time task, but you may need to adapt features for the deployment environment.

2. *Model Training* (Continuation from Phase 1):

The trained model from Phase 1 is used for deployment in Phase 2. There's no need to retrain the model at this stage.

3. *Model Evaluation*:

While the model was evaluated in Phase 1, it's crucial to continually monitor its performance in a real-world environment in Phase 2. You can set up a monitoring system to assess the model's accuracy, precision, recall, and other relevant metrics as new data comes in. However, this evaluation is ongoing rather than a one-time process.

Here's a Python code snippet that demonstrates ongoing evaluation in Phase 2:

```
python
```

```
from sklearn.metrics import accuracy_score, precision_score, recall_score, f1_score
```

```
# Assuming you have a mechanism to collect new data (X_new_data) and corresponding labels (y_new_data)
```

```
y_new_pred = clf.predict(X_new_data)
```

```
# Evaluate the model on new data
```

```
new_accuracy = accuracy_score(y_new_data, y_new_pred)
```

```
new_precision = precision_score(y_new_data, y_new_pred)
```

```
new_recall = recall_score(y_new_data, y_new_pred)
```

```
new_f1 = f1_score(y_new_data, y_new_pred)
```

```
print(f'New Data Accuracy: {new_accuracy}')  
print(f'New Data Precision: {new_precision}')  
print(f'New Data Recall: {new_recall}')  
print(f'New Data F1 Score: {new_f1}')
```