

TEST FILE

```
import numpy as np
import tensorflow as tf
import matplotlib.pyplot as plt
```

```
# Load the saved model
saved_model_path = '/content/drive/MyDrive/diabetic_retinopathy_binary_model.h5'
model = tf.keras.models.load_model(saved_model_path)
```

WARNING:absl:Compiled the loaded model, but the compiled metrics have yet to be built. `model.compile_metrics` will be empty until you t

```
# Define IMG_SIZE
IMG_SIZE = (299, 299)
```

```
# Prediction function using the saved model
def display_and_predict_image(img_path):
    # Display the image
    img = tf.keras.preprocessing.image.load_img(img_path, target_size=IMG_SIZE)
    plt.imshow(img)
    plt.axis('off')
    plt.title("Input Image")
    plt.show()
```

```
# Preprocess the image for prediction
img_array = tf.keras.preprocessing.image.img_to_array(img) / 255.0
img_array = np.expand_dims(img_array, axis=0)
```

```
# Get prediction for DR using the loaded model
dr_prediction = model.predict(img_array)
```

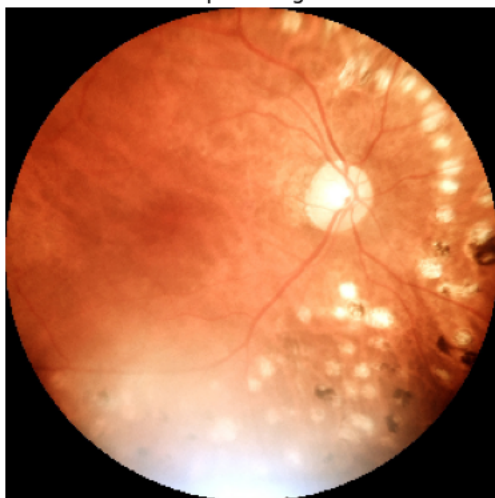
```
# Interpret prediction for DR
dr_result = 'Not DR' if dr_prediction < 0.5 else 'DR'
```

```
print(f'DR Prediction: {dr_result}')
return dr_result
```

```
# Example usage of the prediction function
img_path = '/content/drive/MyDrive/images/1.1.jpg'
display_and_predict_image(img_path)
```



Input Image



1/1 ————— 0s 249ms/step
DR Prediction: DR
'DR'

