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from google.colab import files
uploaded = files.upload()
```

  person\_data.csv

- **person\_data.csv**(text/csv) - 195 bytes, last modified: 6/26/2025 - 100% done

Saving person\_data.csv to person\_data.csv

```
import pandas as pd
from sklearn.linear_model import LinearRegression
from sklearn.model_selection import train_test_split
```

```
# Step 1: Load data
data = pd.read_csv("person_data.csv")
```

```
# Step 2: Convert Gender to numeric using one-hot encoding
data = pd.get_dummies(data, columns=["Gender"], drop_first=True)
# Now you'll have a 'Gender_Male' column: Male=1, Female=0
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# Step 3: Separate features (X) and target (y)
X = data[["Height", "Age", "Gender_Male"]]
y = data["Weight"]
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# Step 4: Split into training and testing
x_train, x_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=42)
```

```
# Step 5: Train the model
model = LinearRegression()
model.fit(x_train, y_train)
```

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# Step 6: Print model equation
coefficients = model.coef_
intercept = model.intercept_
print("Model equation:")
print(f"Weight = {coefficients[0]:.2f}*Height + {coefficients[1]:.2f}*Age + {coefficients[2]:.2f}*Gender_Male + {intercept:.2f}")
```

```
# Step 7: Predict and show results
y_pred = model.predict(x_test)
print("\nPredictions on test data:")
for actual, predicted in zip(y_test, y_pred):
    print(f"Actual: {actual} kg, Predicted: {predicted:.2f} kg")
```

 Model equation:  
Weight = 32.84\*Height + 0.32\*Age + 14.62\*Gender\_Male + -3.06

Predictions on test data:  
Actual: 64 kg, Predicted: 56.86 kg  
Actual: 69 kg, Predicted: 79.11 kg