import necessary libraries

```
import pandas as pd
from sklearn.model_selection import train_test_split
from sklearn.linear_model import LinearRegression
from sklearn.metrics import mean_squared_error
import numpy as np
import joblib
```

load the data

```
train_df = pd.read_csv('train.csv')
test_df = pd.read_csv('test.csv')
```

Feature selection

```
features = ['GrLivArea', 'BedroomAbvGr', 'FullBath']
X = train_df[features]
y = train_df['SalePrice']
```

Spliting data for validation

```
X_train, X_valid, y_train, y_valid = train_test_split(X, y, test_size=0.2, random_state=4
```

Train the model

```
model = LinearRegression()
model.fit(X_train, y_train)
```

```
▾ LinearRegression
LinearRegression()
```

Validate the model performance

```
y_pred = model.predict(X_valid)
rmse = np.sqrt(mean_squared_error(y_valid, y_pred))
print(f"Validation RMSE: {rmse:.2f}")
X_test = test_df[features]
test_preds = model.predict(X_test)
```

```
Validation RMSE: 52975.72
```

Creating the submission file

```
submission = pd.DataFrame({
    'Id': test_df['Id'],
    'SalePrice': test_preds
})
submission.to_csv('submission.csv', index=False)
```

saving the model

```
joblib.dump(model, 'model.pkl')
print("Model saved as model.pkl")
```

```
Model saved as model.pkl
```

Start coding or generate with AI.