모듈 기능 정의

```
# 모듈이 사용할 패키지
from sklearn.model_selection import cross_val_score, cross_validate
from pandas import DataFrame
```

```
def singleML(modelName, x, y=None, cv=5, **kargs):
    # 모델 생성
    model = modelName(**kargs)
    # 교차 검증
    score = cross_val_score(model, x, y, cv=cv).mean()
    # 결과 데이터 프레임
    df = DataFrame(cross_validate(model, x, y, cv=cv))
    return [model, score, df]
```

모듈 테스트

```
from pandas import read_excel
from sklearn.linear_model import LinearRegression
from sklearn.svm import SVC
```

```
origin = read_excel('https://data.hossam.kr/G02/breast_cancer.xlsx')
x = origin.drop('target', axis=1)
y = origin['target']
x.shape, y.shape
```

```
((569, 30), (569,))
```

```
model, score, df = singleML(LinearRegression, x, y)
model
```

▾ LinearRegression

```
LinearRegression()
```

```
score
```

```
0.7046861734644332
```

```
df
```

	fit_time	score_time	test_score
0	0.004003	0.002998	0.623595
1	0.004000	0.000999	0.698961
2	0.003016	0.001984	0.755933
3	0.004001	0.002001	0.773021
4	0.003999	0.002000	0.671920

```
model, score, df = singleML(SVC, x, y, kernel='linear', C=0.1, random_state=777)
model
```

SVC

```
SVC(C=0.1, kernel='linear', random_state=777)
```