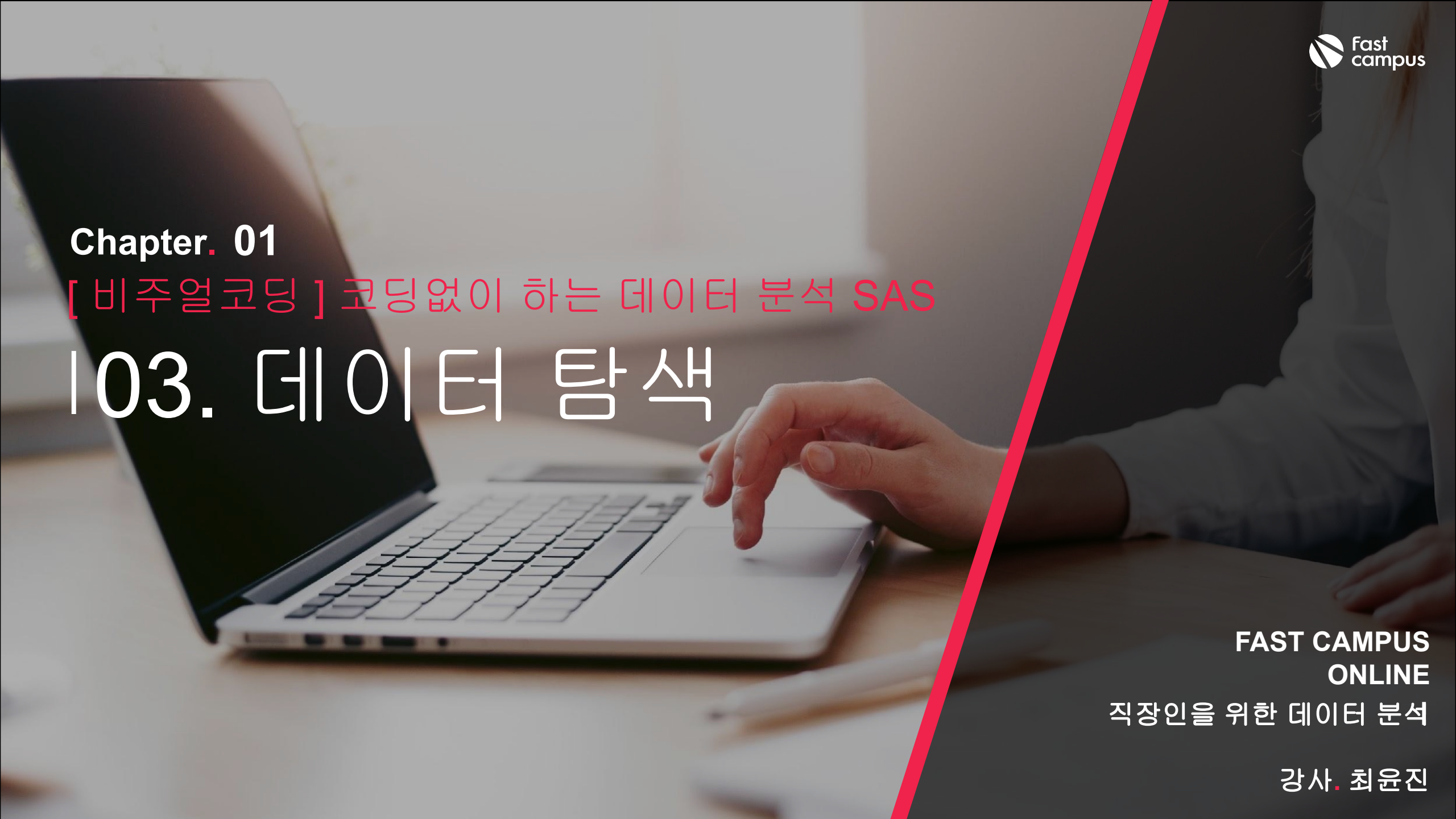

Chapter. 01

[비주얼코딩] 코딩없이 하는 데이터 분석 SAS

03. 데이터 탐색

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직장인을 위한 데이터 분석

강사. 최윤진

Chapter. 06

코딩 없이 하는 데이터 분석 SAS
03. 데이터 탐색

I 데이터

http://bit.ly/vc-sas-ad

변수	변수 설명
TV	TV 광고비
radio	라디오 광고비
newspaper	신문 광고비
sales	매출액

I 데이터 탐색

데이터 탐색

```
[ ] # 라이브러리를 불러옵니다.
    import pandas as pd
    import numpy as np
    import matplotlib.pyplot as plt
    import seaborn as sns

    # 데이터를 불러옵니다.
    from google.colab import files
    uploaded = files.upload()
    for fn in uploaded.keys():
      print('파일을 불러왔습니다 "{name}" {length} bytes'.format(
          name=fn, length=len(uploaded[fn])))
```

파일 선택 | 선택된 파일 없음 Upload widget is only available when the cell has been executed in the current browser session. Please rerun this cell to enable.

```
Saving Advertising.csv to Advertising.csv
파일을 불러왔습니다 "Advertising.csv" 4756 bytes
```

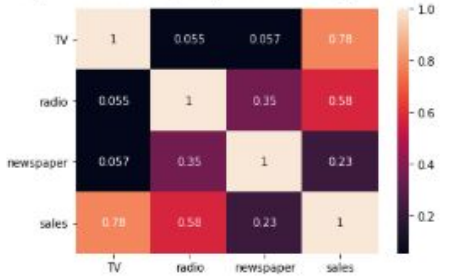
```
[ ] df = pd.read_csv("Advertising.csv")
    print(df.shape)
    df.head(10)
```

```
(200, 5)
```

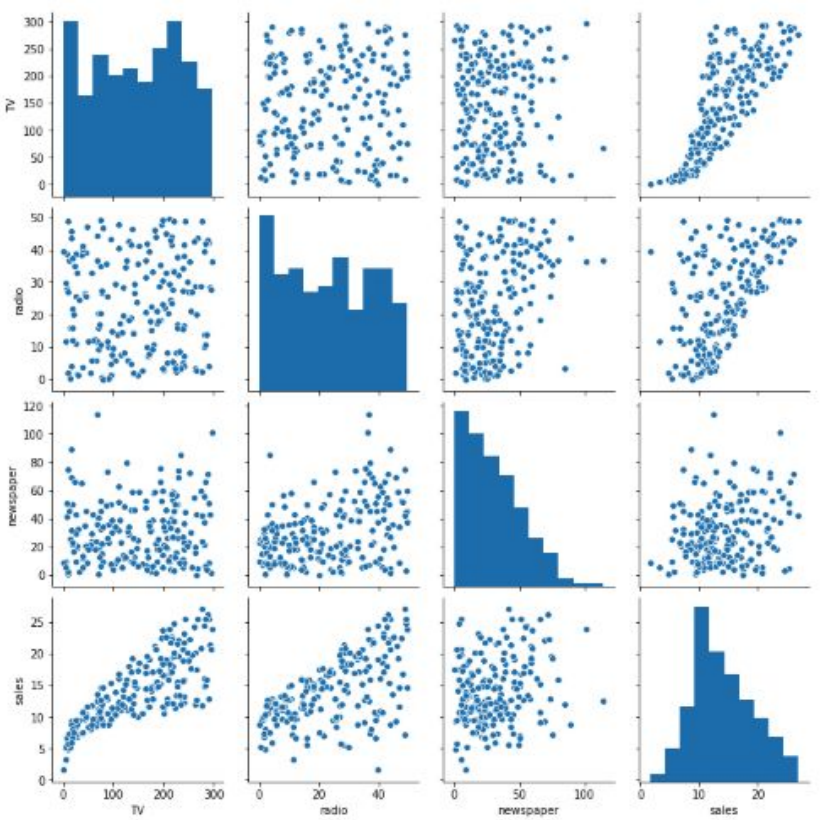
	Unnamed: 0	TV	radio	newspaper	sales
0	1	230.1	37.8	69.2	22.1
1	2	44.5	39.3	45.1	10.4
2	3	17.2	45.9	69.3	9.3
3	4	151.5	41.3	58.5	18.5
4	5	180.8	10.8	58.4	12.9
5	6	8.7	48.9	75.0	7.2
6	7	57.5	32.8	23.5	11.8
7	8	120.2	19.6	11.6	13.2
8	9	8.6	2.1	1.0	4.8
9	10	199.8	2.6	21.2	10.6

```
[ ] sns.heatmap(corr,annot=True)
```

```
<matplotlib.axes._subplots.AxesSubplot at 0x7fcaae31ef98>
```




```
[ ] sns.pairplot(df[["TV", "radio", "newspaper", "sales"]])
    plt.show()
```



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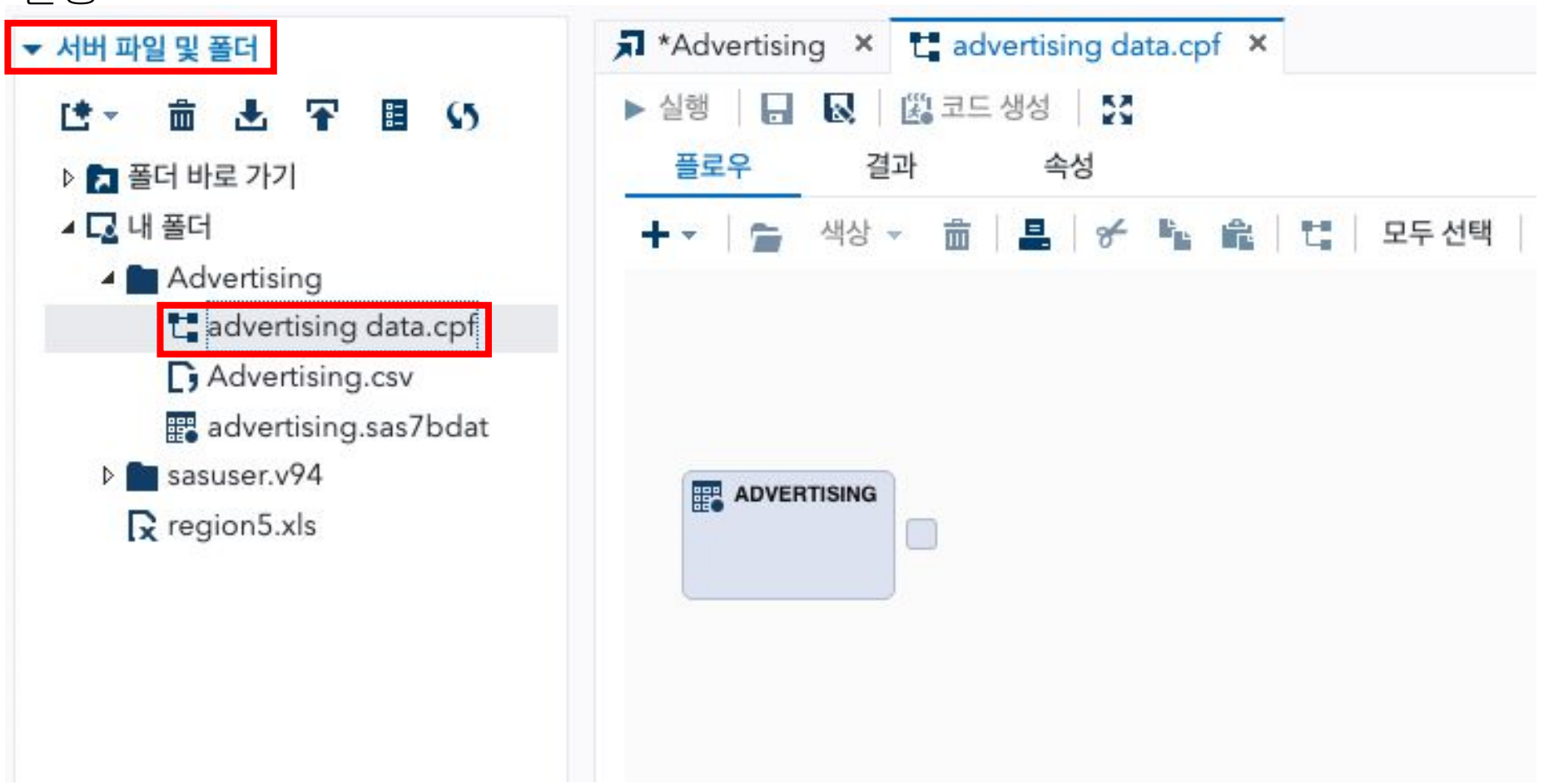
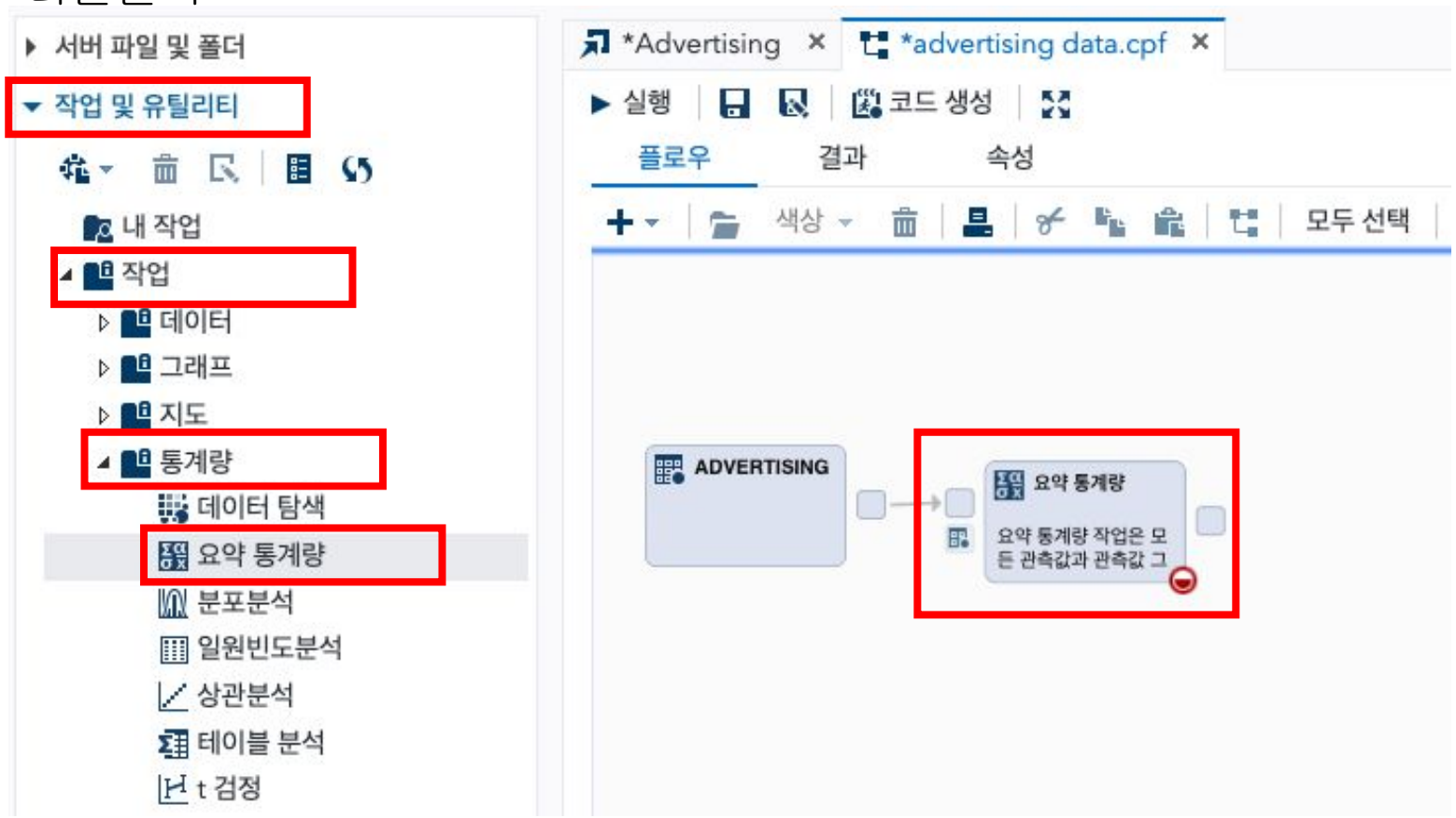
I 프로세스 플로우 불러오기

서버 파일 및 폴더 > 내 폴더 > Advertising > advertising data.cpf
실행



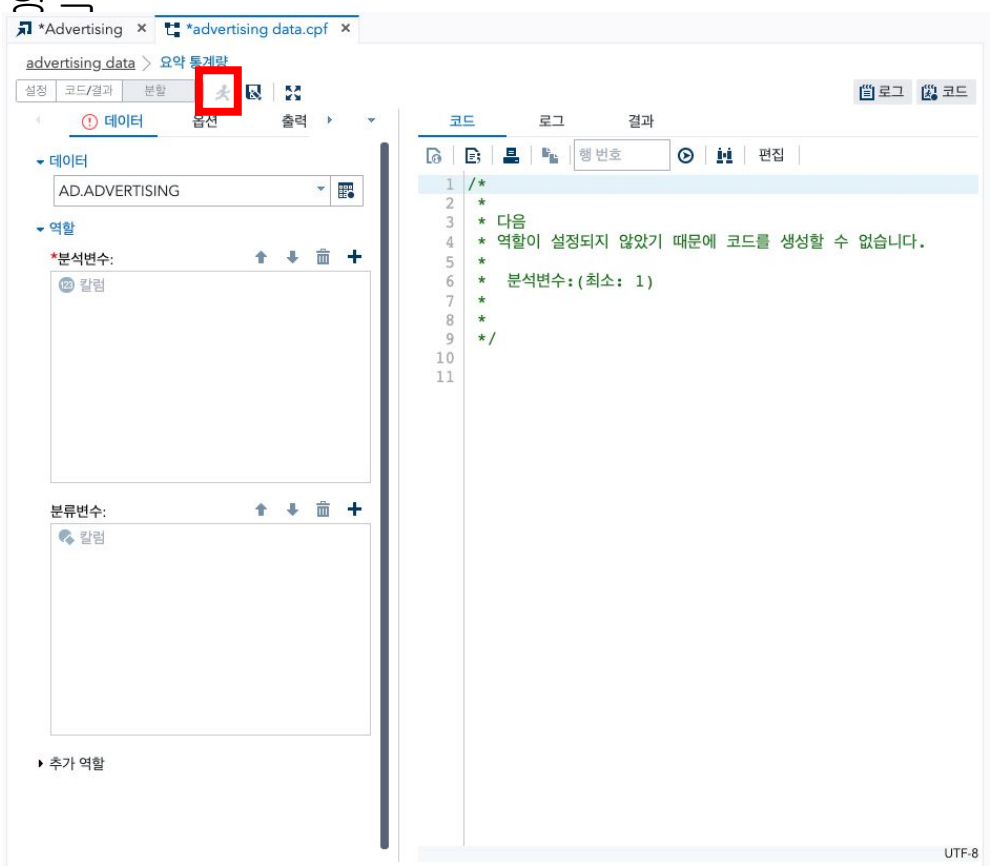
I 요약 통계량

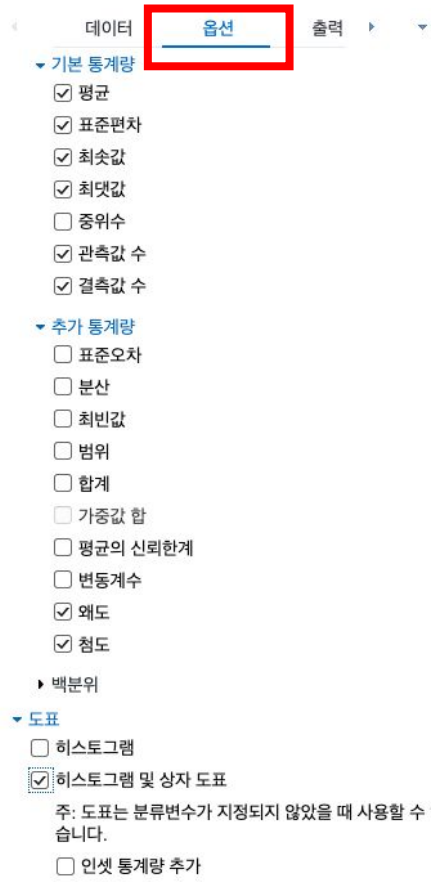
작업 및 유틸리티 > 작업 > 통계량 > 요약 통계량 > 데이터를 요약 통계량 노드에 연결 > 요약 통계량 더블클릭



I 요약 통계량 인터페이스

대부분의 노드는 유사한 구조의 인터페이스를 가짐
별표(*)가 있는 항목은 필수적으로 지정해야하는 항목





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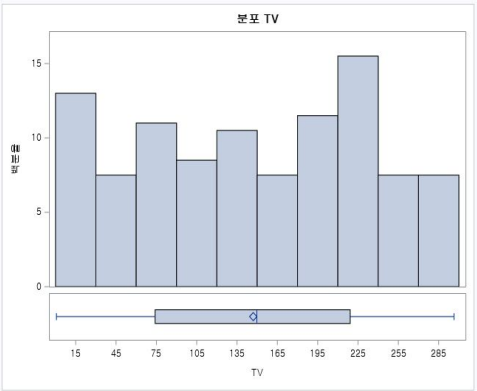
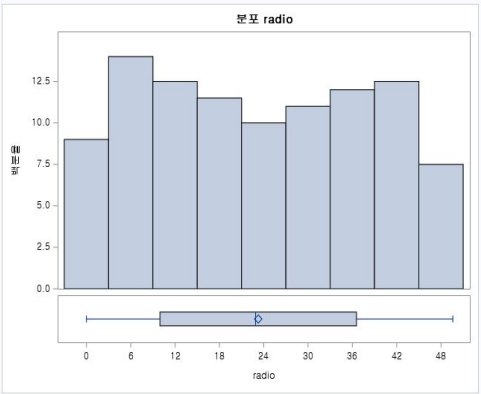
I 요약 통계량 결과 화면

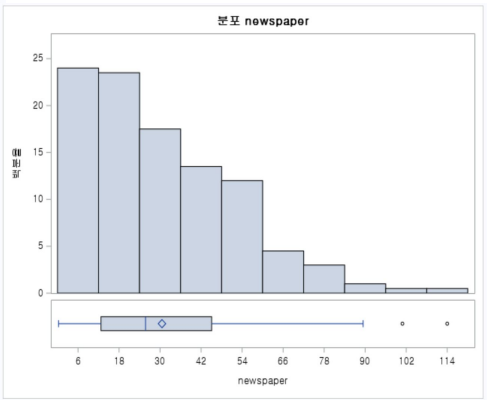
요약 통계량 결과 화면에서 전반적인 데이터에 대해 점검

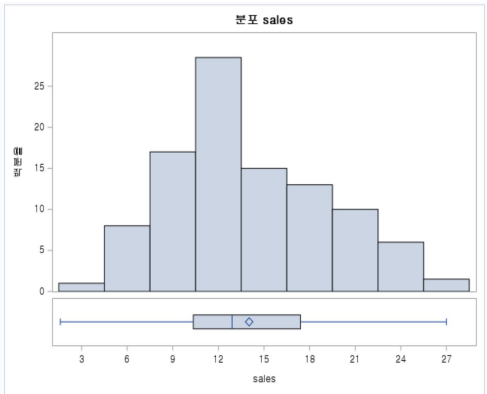
본 데이터에는 결측값이 존재하지 않음
결측값이 있을 경우 제거하거나 다른 값으로 대체해줘야함

변수	평균	표준편차	최솟값	최댓값	N	결측값 수	왜도	첨도
TV	147.0425000	85.8542363	0.7000000	296.4000000	200	0	-0.0698534	-1.2264948
radio	23.2640000	14.8468092	0	49.6000000	200	0	0.0941746	-1.2604014
newspaper	30.5540000	21.7786208	0.3000000	114.0000000	200	0	0.8947204	0.6495019
sales	14.0225000	5.2174566	1.6000000	27.0000000	200	0	0.4075714	-0.4088692









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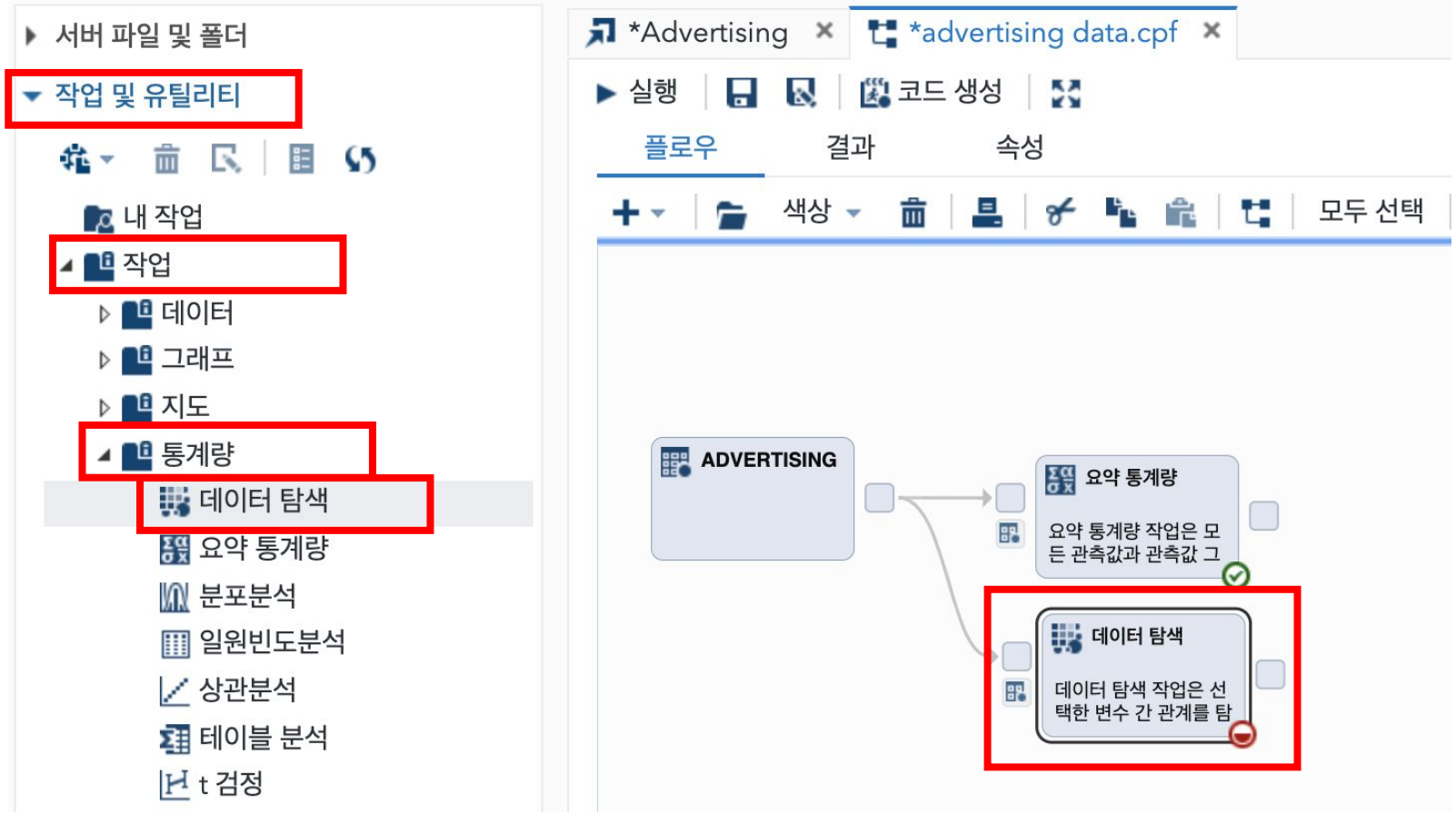
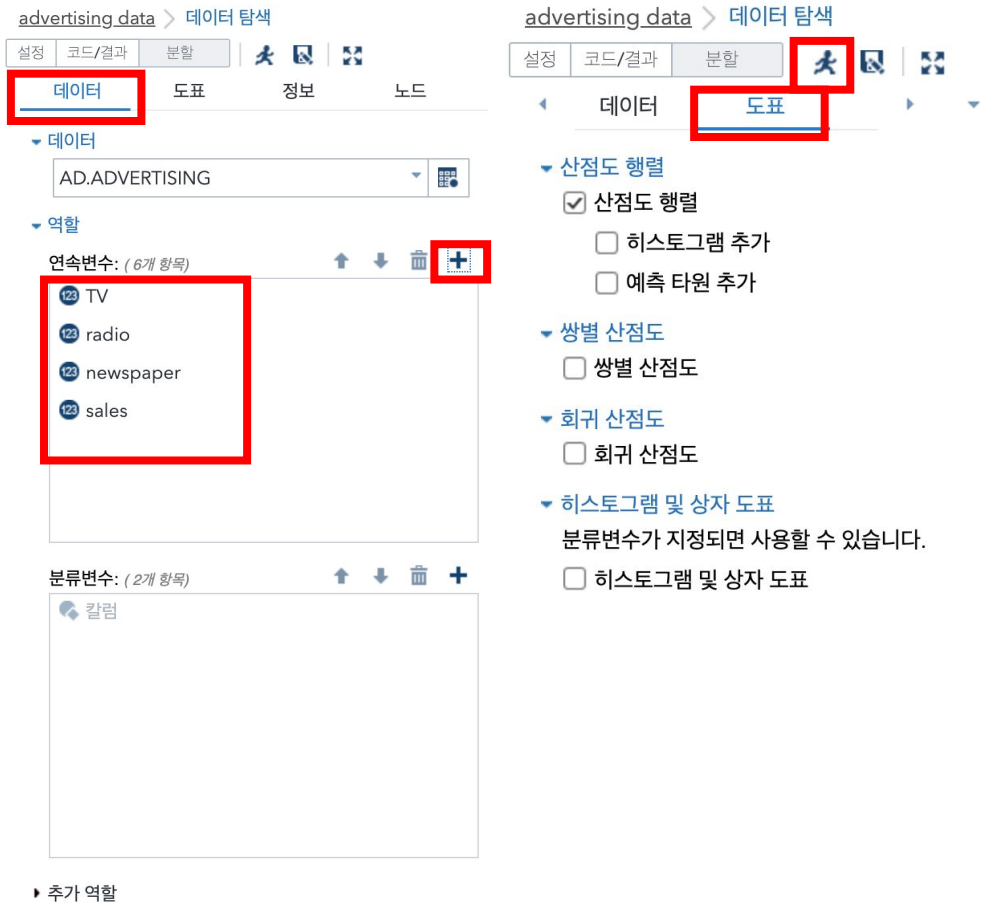
I 데이터 탐색

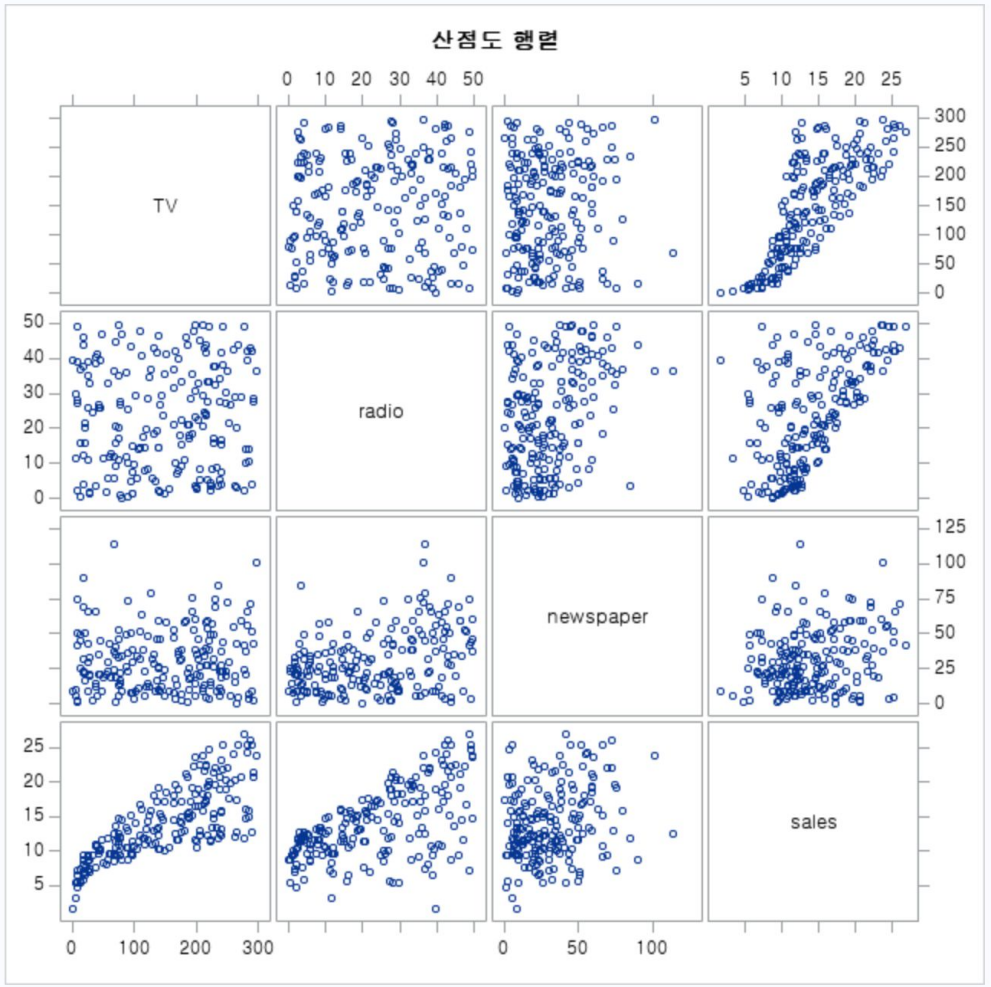
작업 및 유틸리티 > 작업 > 통계량 > 데이터 탐색 > 데이터를 데이터 탐색 노드에 연결 > 데이터 탐색 더블클릭



I 데이터 탐색

데이터 > 연속변수 선택 > 도표 > 산점도 행렬 >





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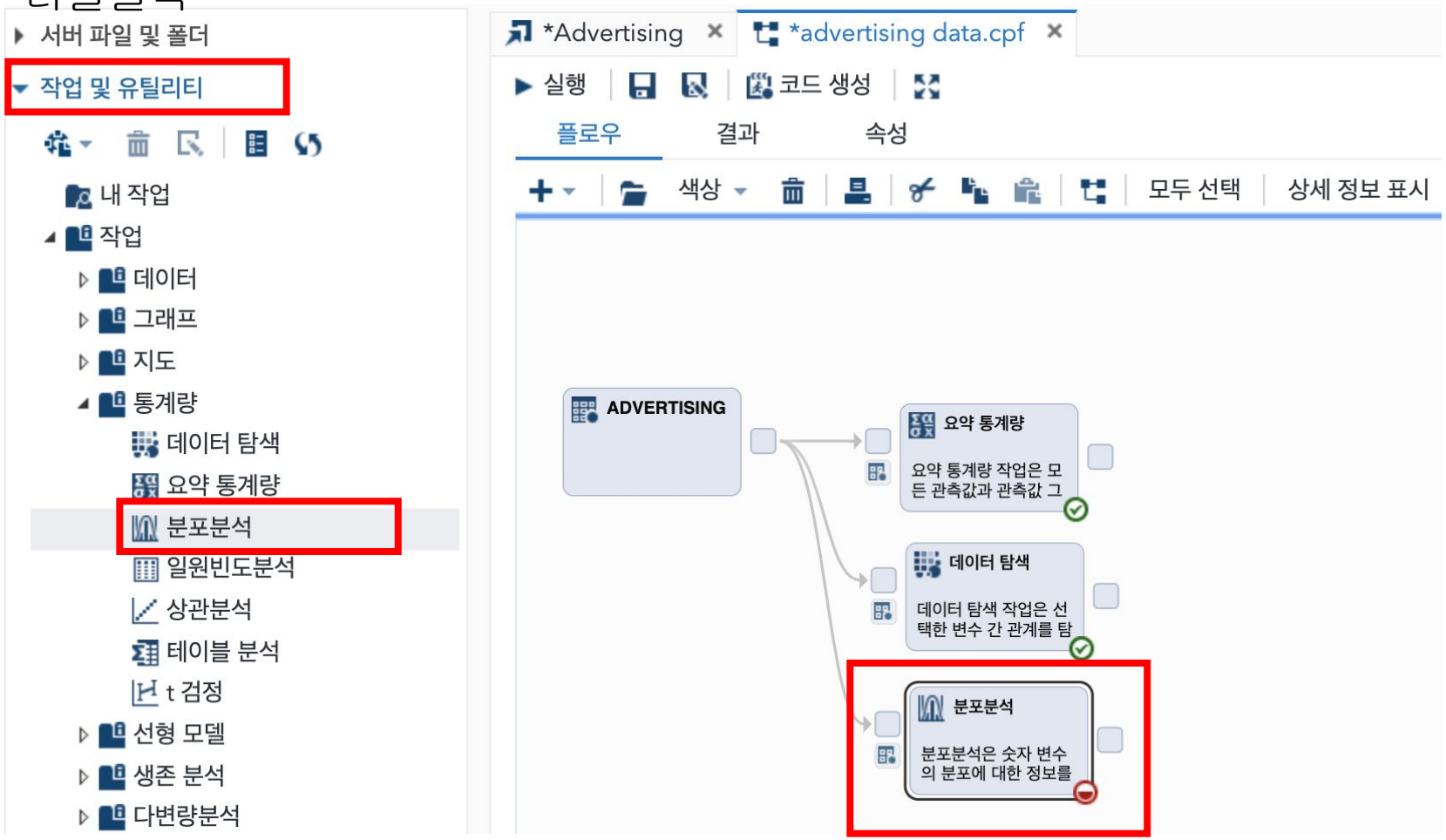
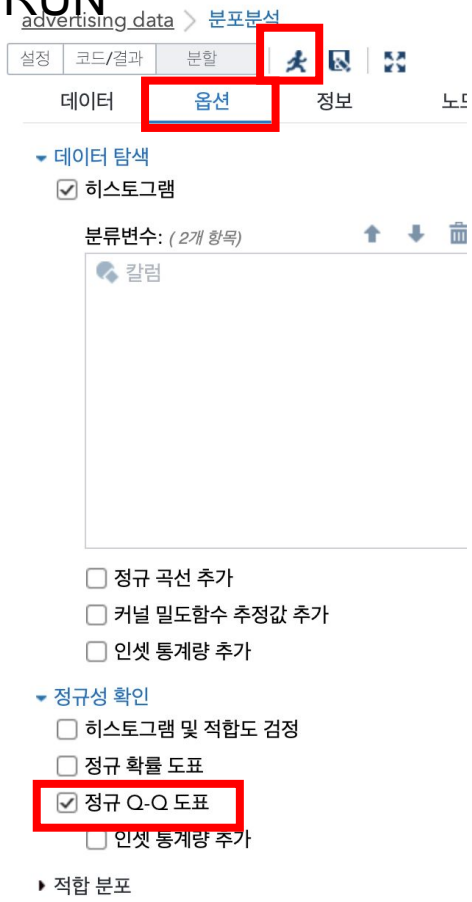
I 분포분석

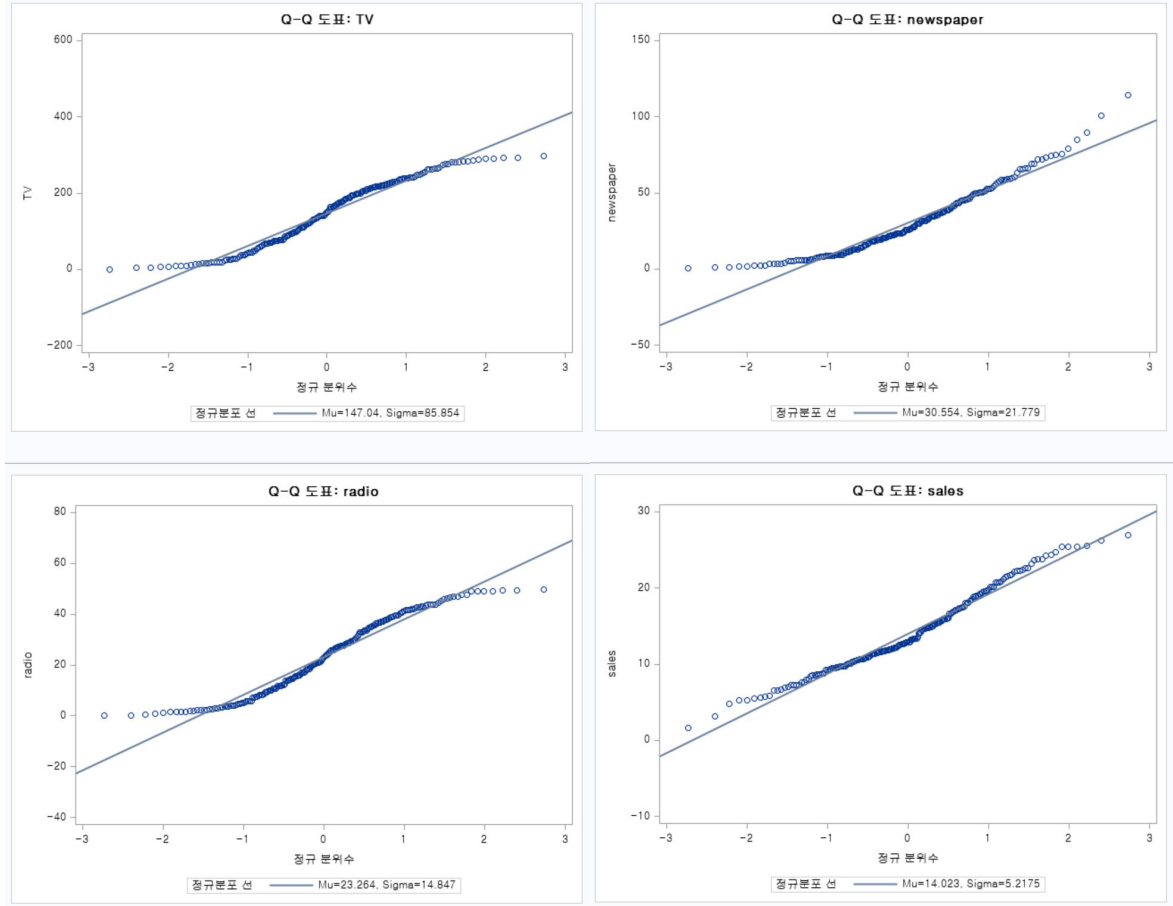
작업 및 유틸리티 > 작업 > 통계량 > 분포분석 > 데이터를 분포분석 노드에 연결 > 분포분석 더블클릭



I 분포분석

데이터 > 연속변수 선택 > 도표 > 산점도 행렬 > RUN





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