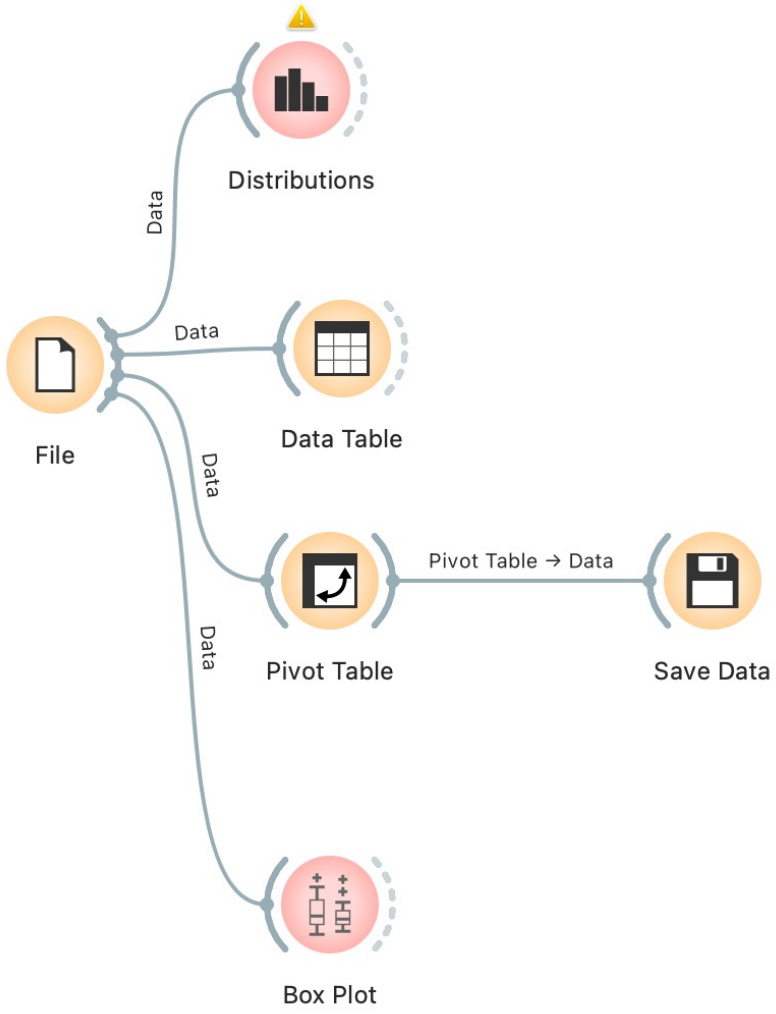
Text Data Mining
For Business Decisions

Module 12

Visual Programming A

Data Mining with a Visual Programming Language - Orange



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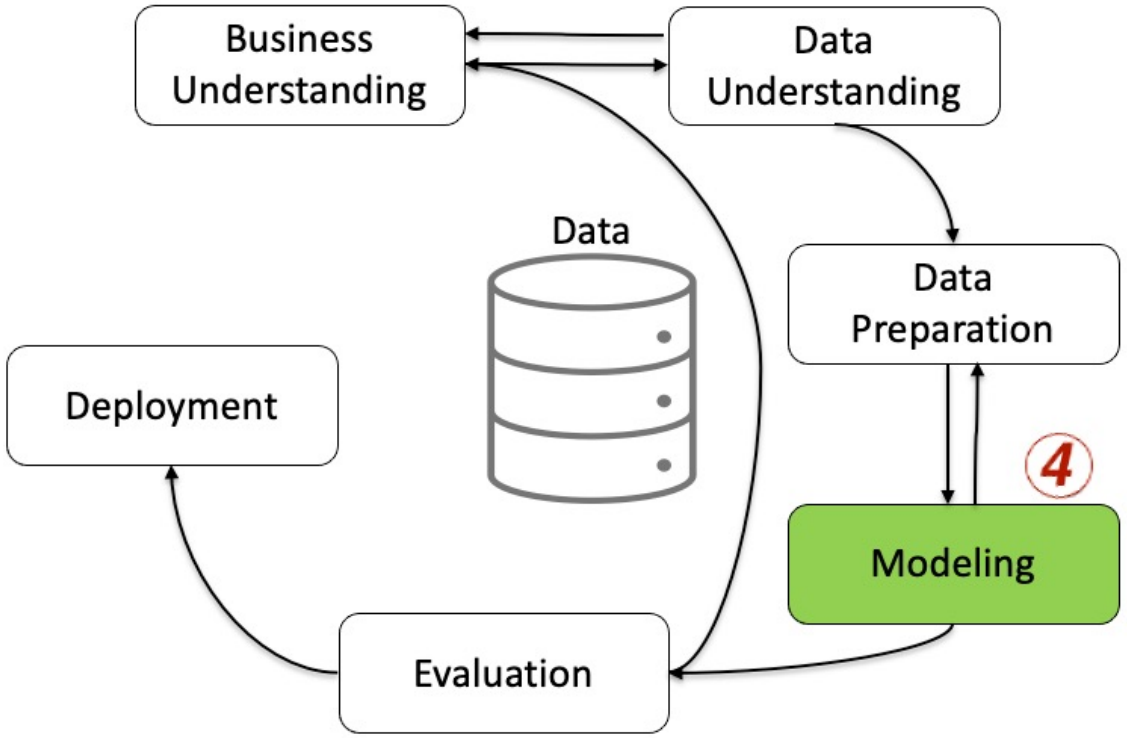
Data Mining- Continuing with Model-Making

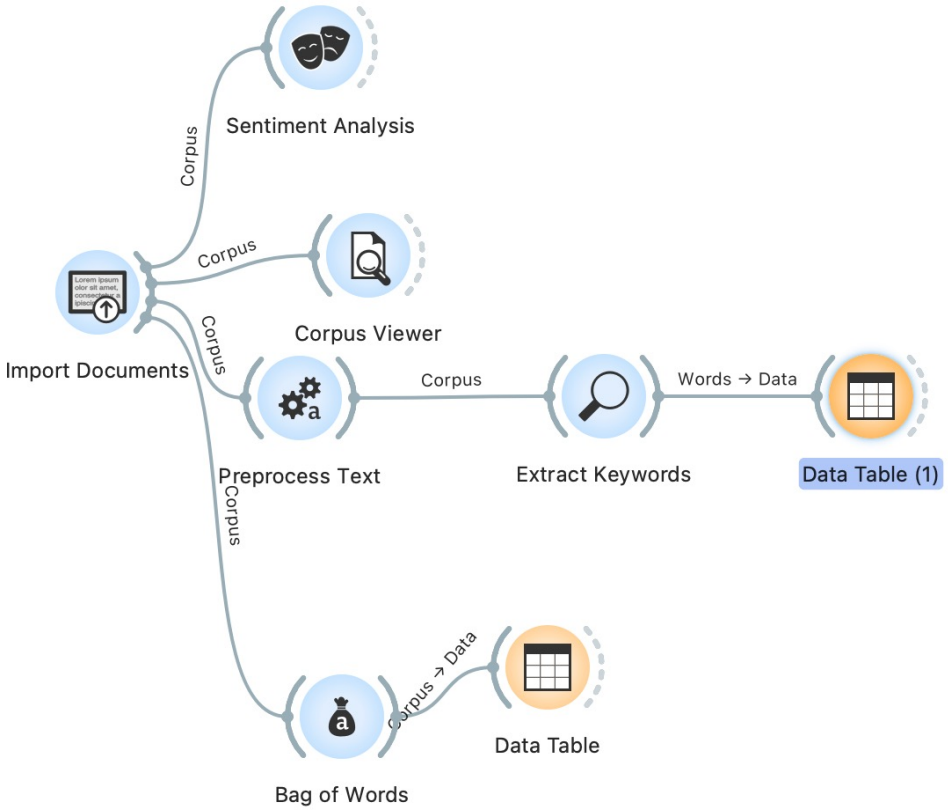


Visual Programming

- Visual programming is a type of programming language that lets humans describe processes using illustration.
- Whereas a typical text-based programming language makes the programmer think like a computer, a visual programming language lets the programmer describe the process in terms that make sense to humans.
- Orange - An open-source, visual programming tool for data mining, statistical data analysis, and machine learning

Visual Programming vs. Command Line Code

Python Visual Programming



Python Code

Solver.py

```python
import math


class Solver:

    def demo(self, a, b, c):
        d = b ** 2 - 4 * a * c
        if d > 0:
            disc: float = math.sqrt(d)
            root1 = (-b + disc) / (2 * a)
            root2 = (-b - disc) / (2 * a)
            return root1, root2
        elif d == 0:
            return -b / (2 * a)
        else:
            return "This equation has no roots"


if __name__ == '__main__':
    solver = Solver()

    while True:
        a = int(input("a: "))
        b = int(input("b: "))
        c = int(input("c: "))
        result = solver.demo(a, b, c)
        print(result)
```

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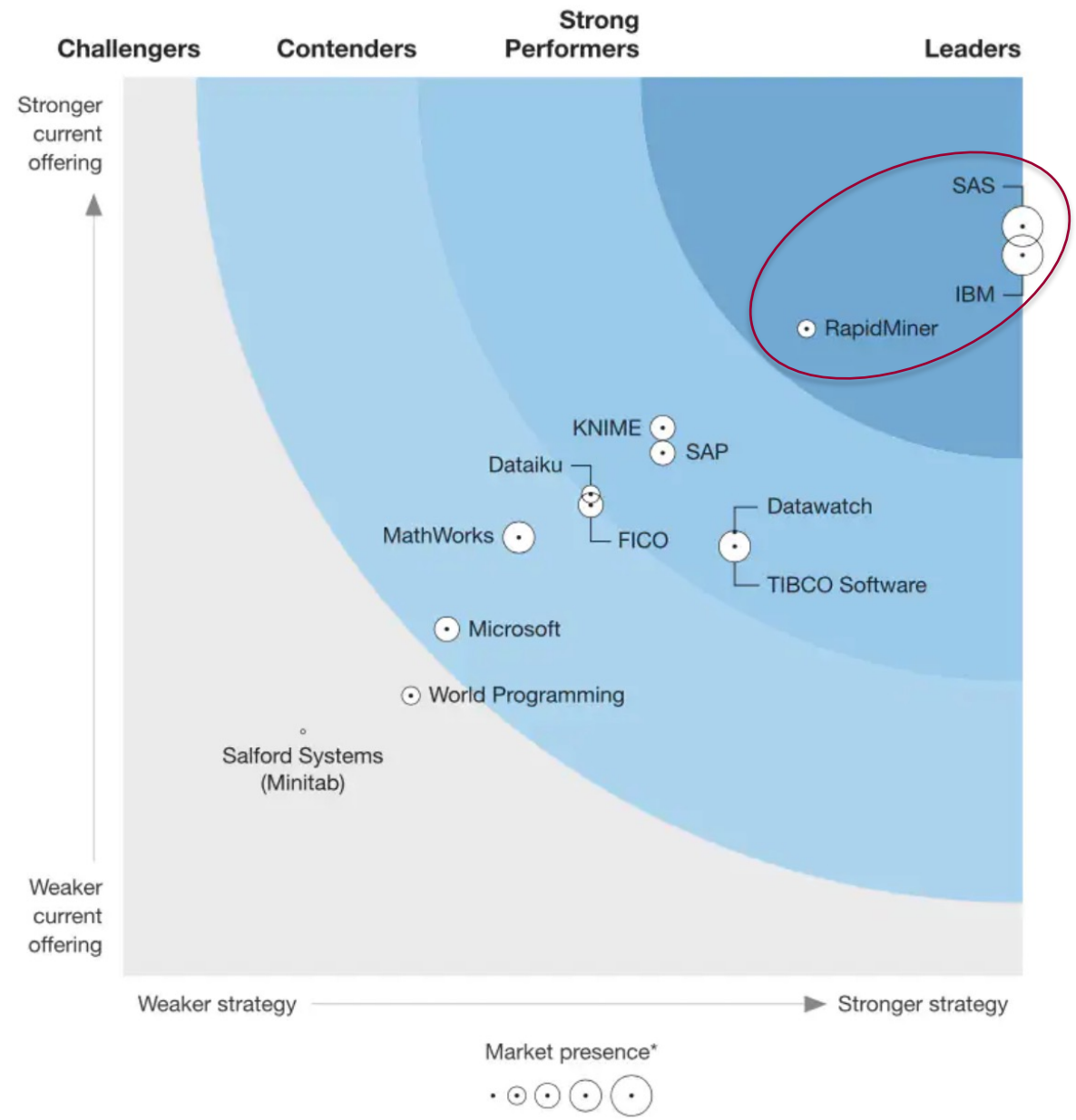
Visual Programming Environments



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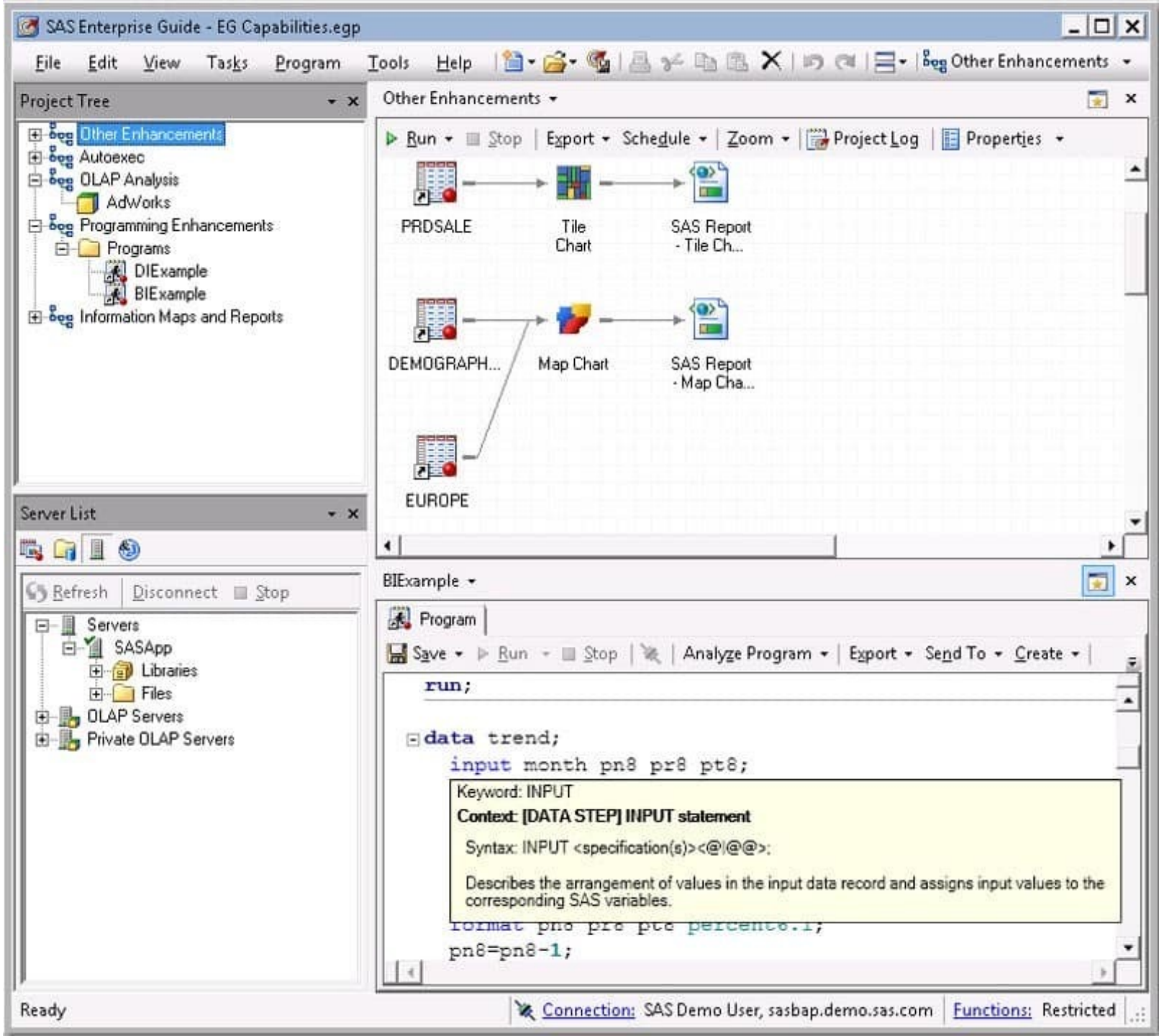
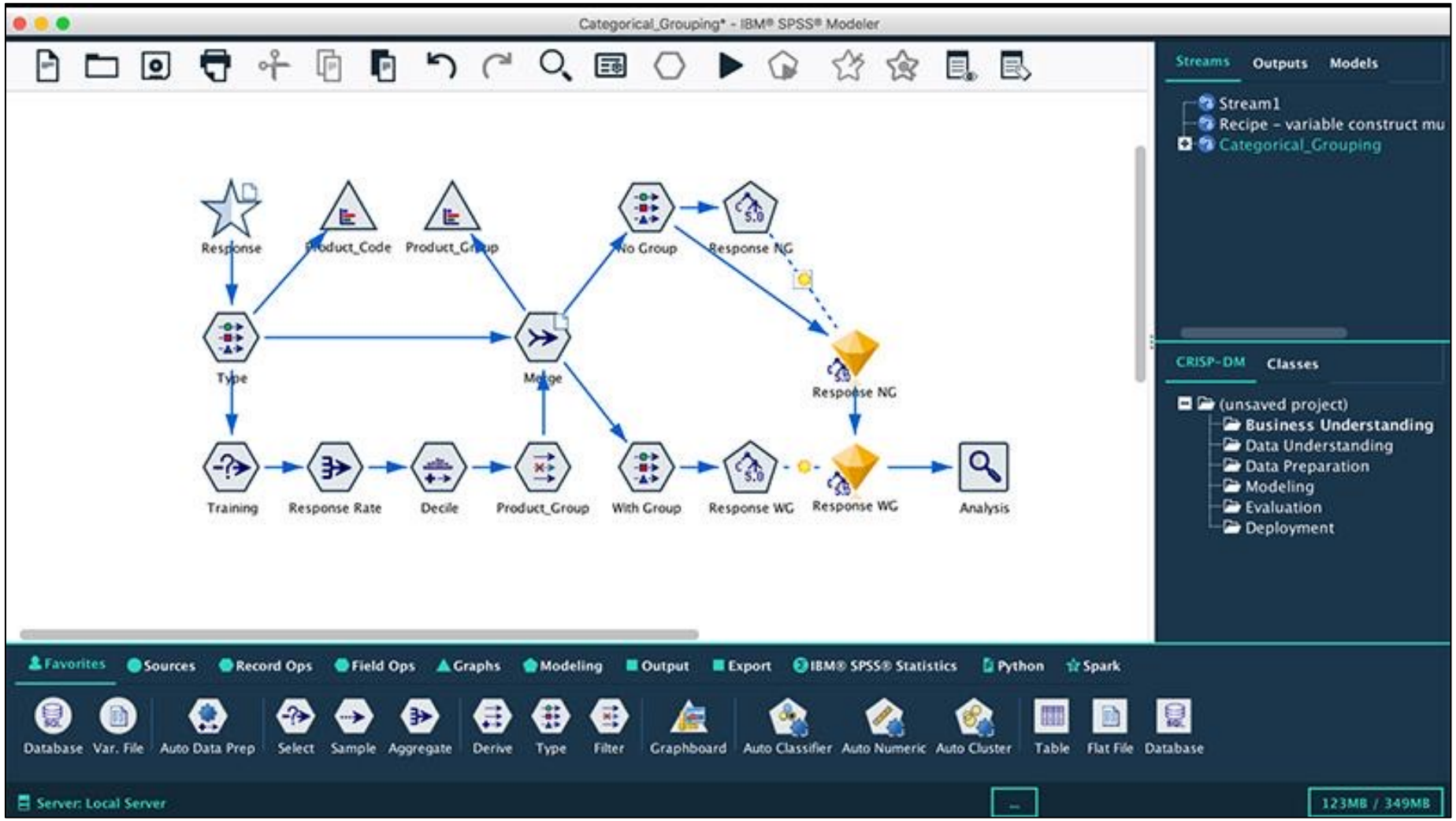
Enterprise Guide



IBM SPSS

Data Modeler



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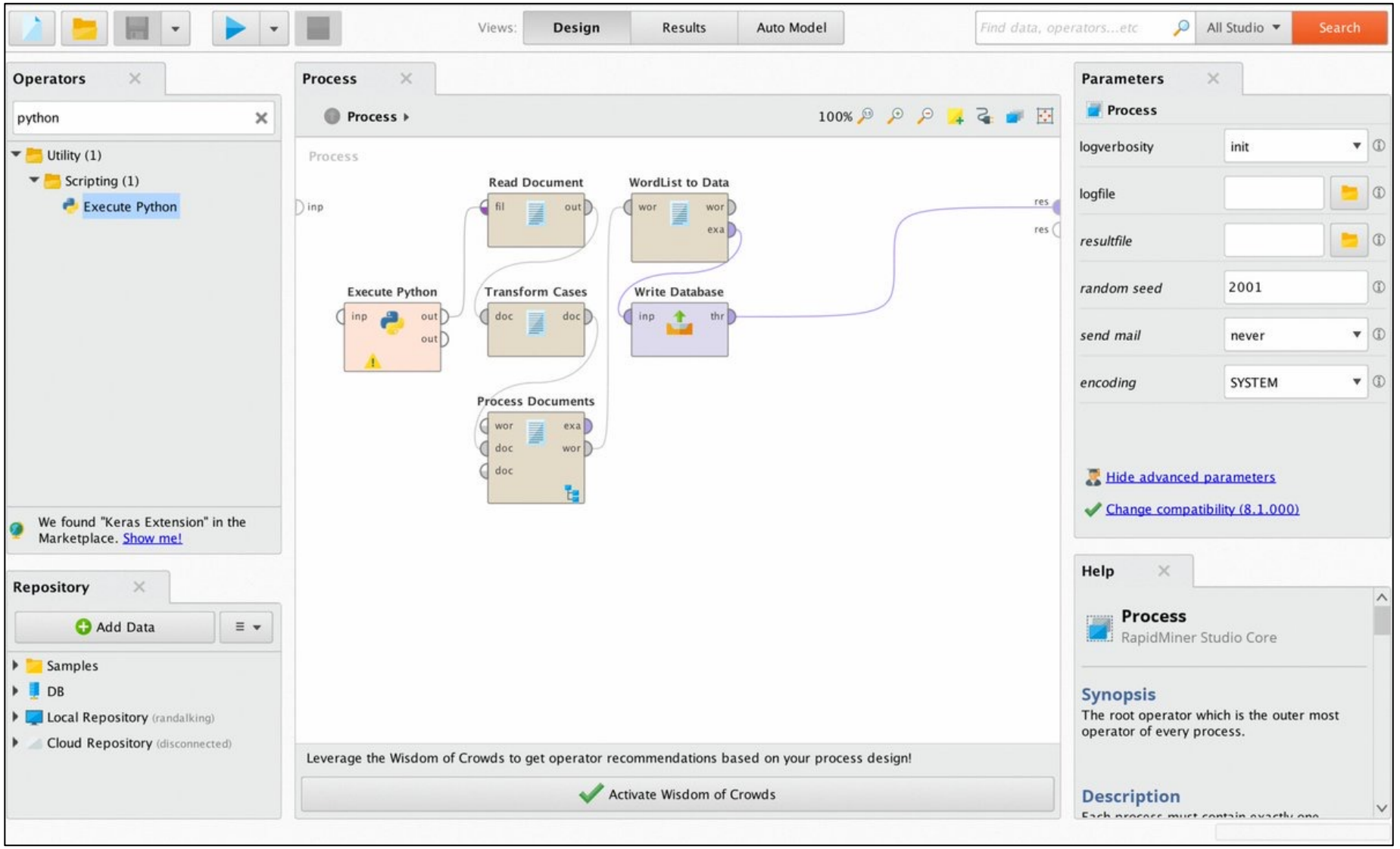
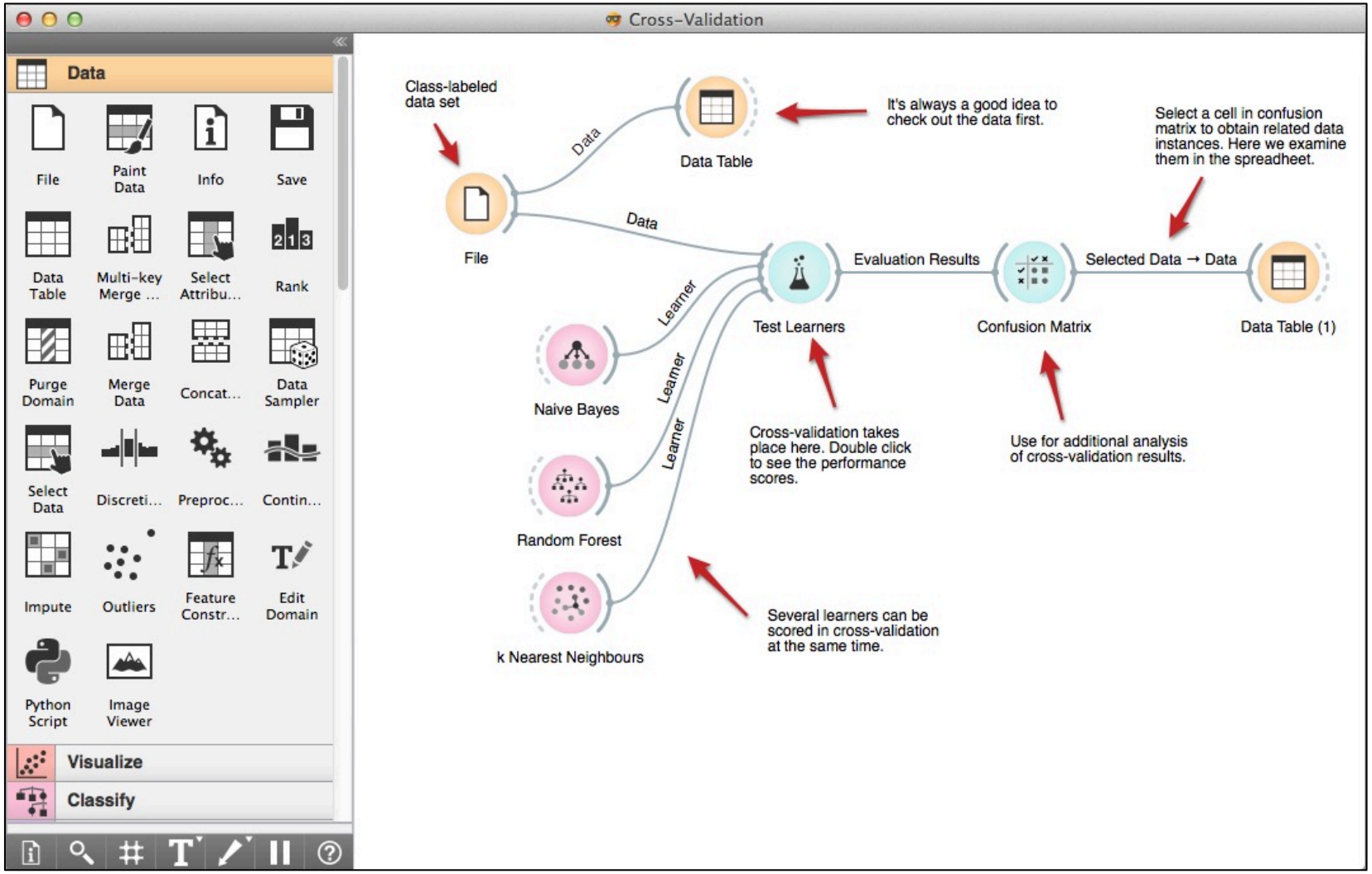
rapidminer



Orange Python Visual Programming



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