Mapping Research Requirements to Software Tools:

A Data Science Perspective

Virtual Residency
Intermediate/Advanced Workshop 2020

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Harris Institute for Assured Information

http://hiai.fit.edu

About Florida Tech

- Founded in 1958, Florida Tech is a national, private, not-for-profit, technological, coeducational, doctoral-granting, research-intensive university.
- One of America's most diverse universities, Florida Tech has more than 60,000 alumni from more than 120 countries.
- Three astronaut faculty members: Buzz Aldrin, Sc.D., Samuel Durrance, Ph.D., and Winston Scott, M.S.
- According to the 2020 rankings from *U.S. News & World Report,* Florida Tech is No. 43 in the U.S. among universities with a full-time undergraduate population of 5,000 students or fewer.
- 2019 *Wall Street Journal/Times Higher Education, Florida Tech is* 46 out of 286 colleges and universities across the southern United States

A Data Science Perspective

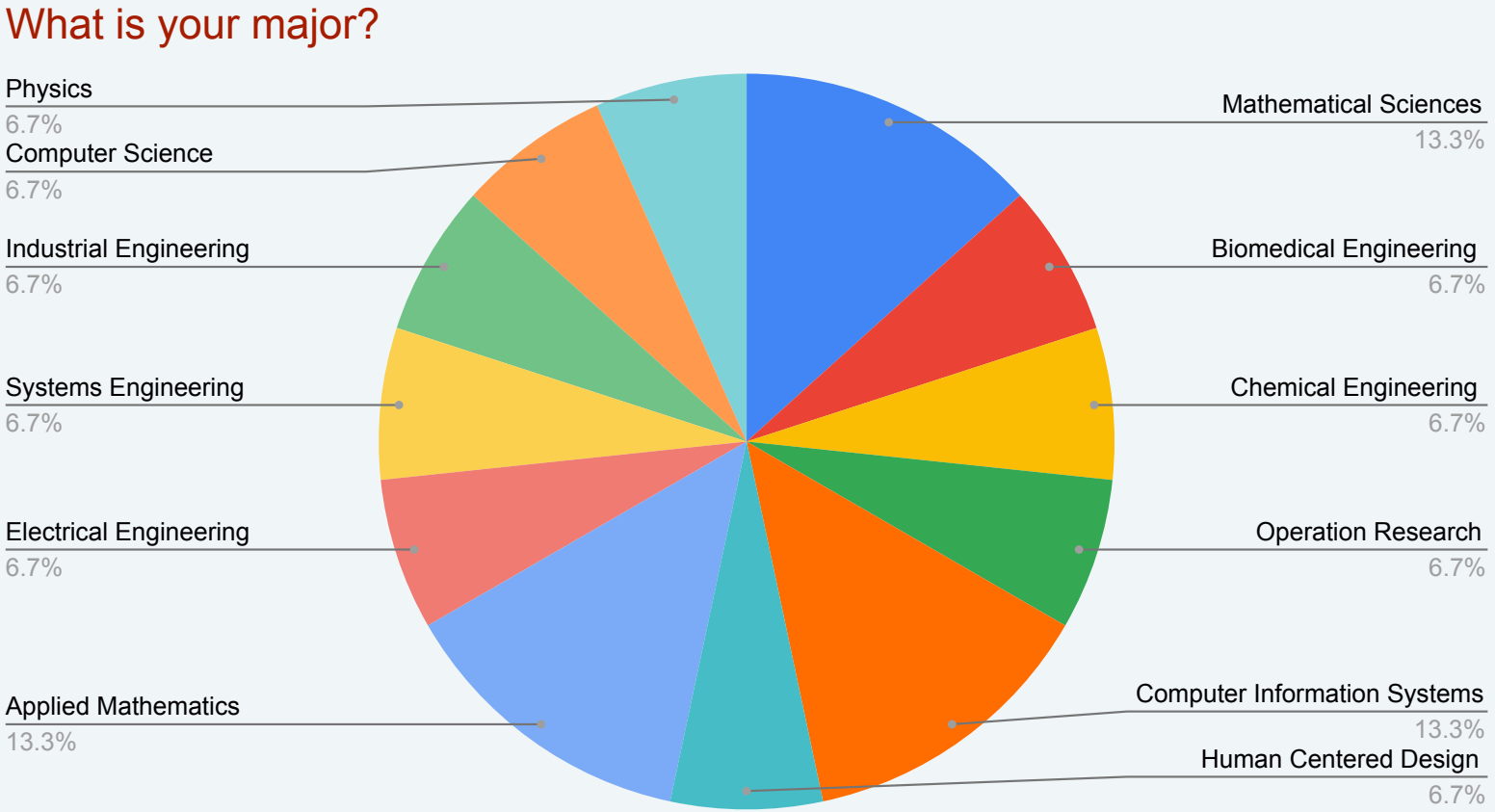
- **Data science** is a multidisciplinary field focused on finding actionable insights from large sets of raw and structured data

- **Data Analysis** is a process for obtaining raw data and converting it into information useful for decision-making by users

Data Science at Florida Tech

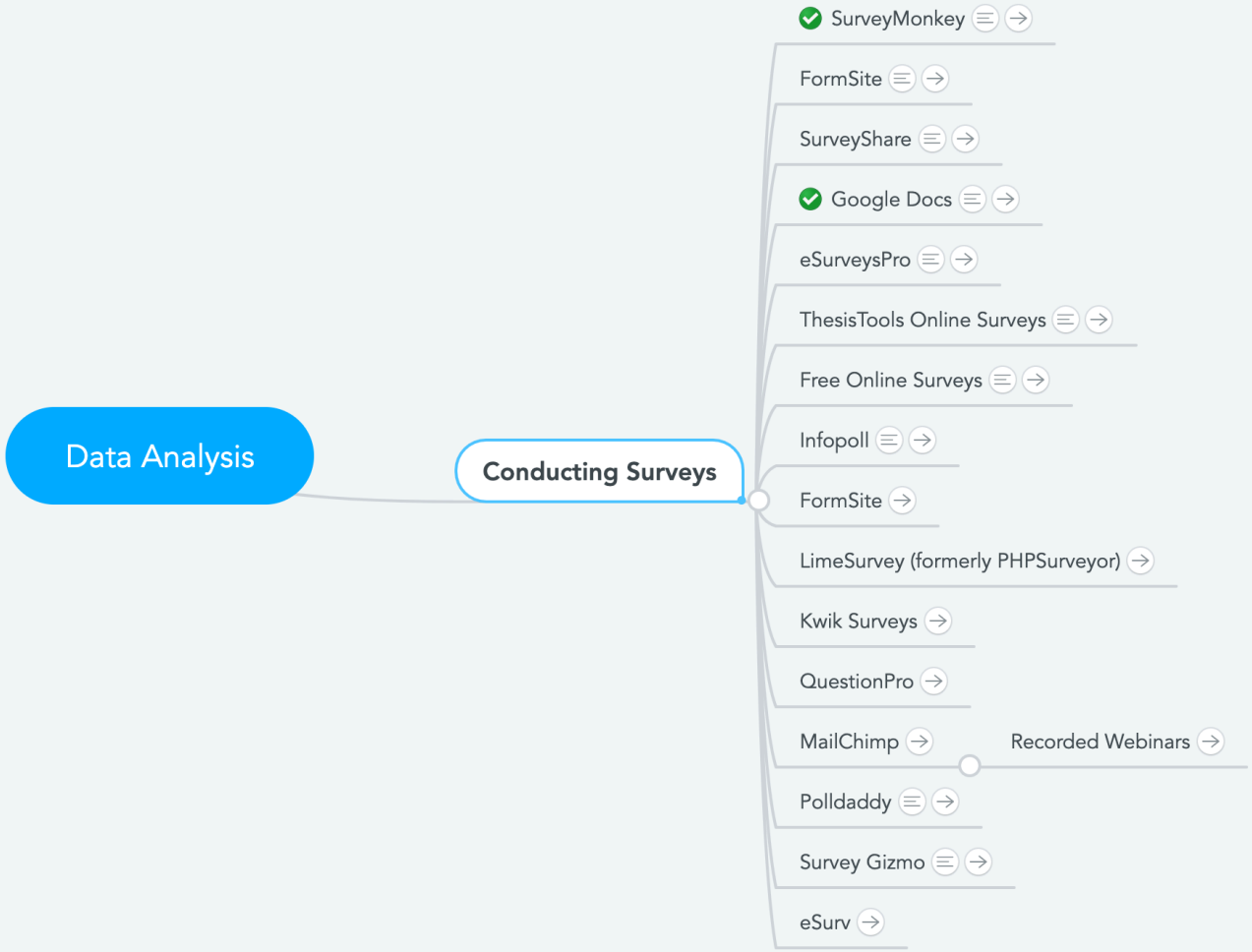
Data Analysis Methods Course, Spring 2020

Responses = 16/20 students



print("Hello World!") → Learn Python → Get the Data Preprocess it → Model it, Analyze, Visualize & Present

Data Analysis: Tools for Conducting Surveys



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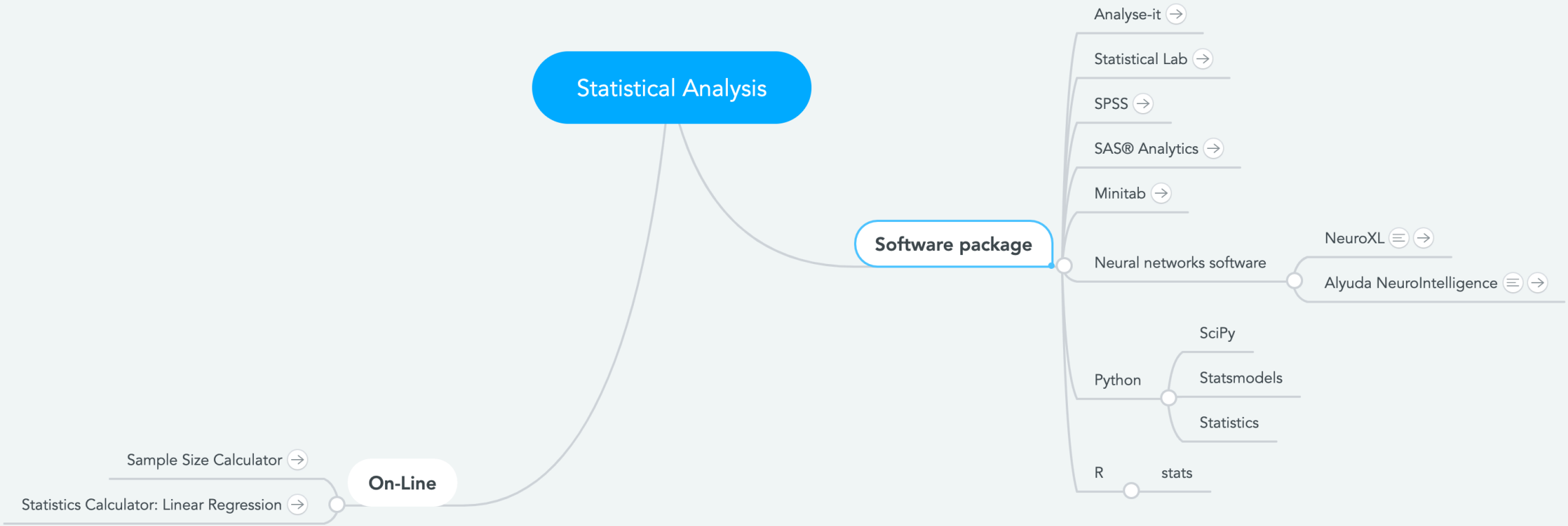
Statistical Analysis Tools



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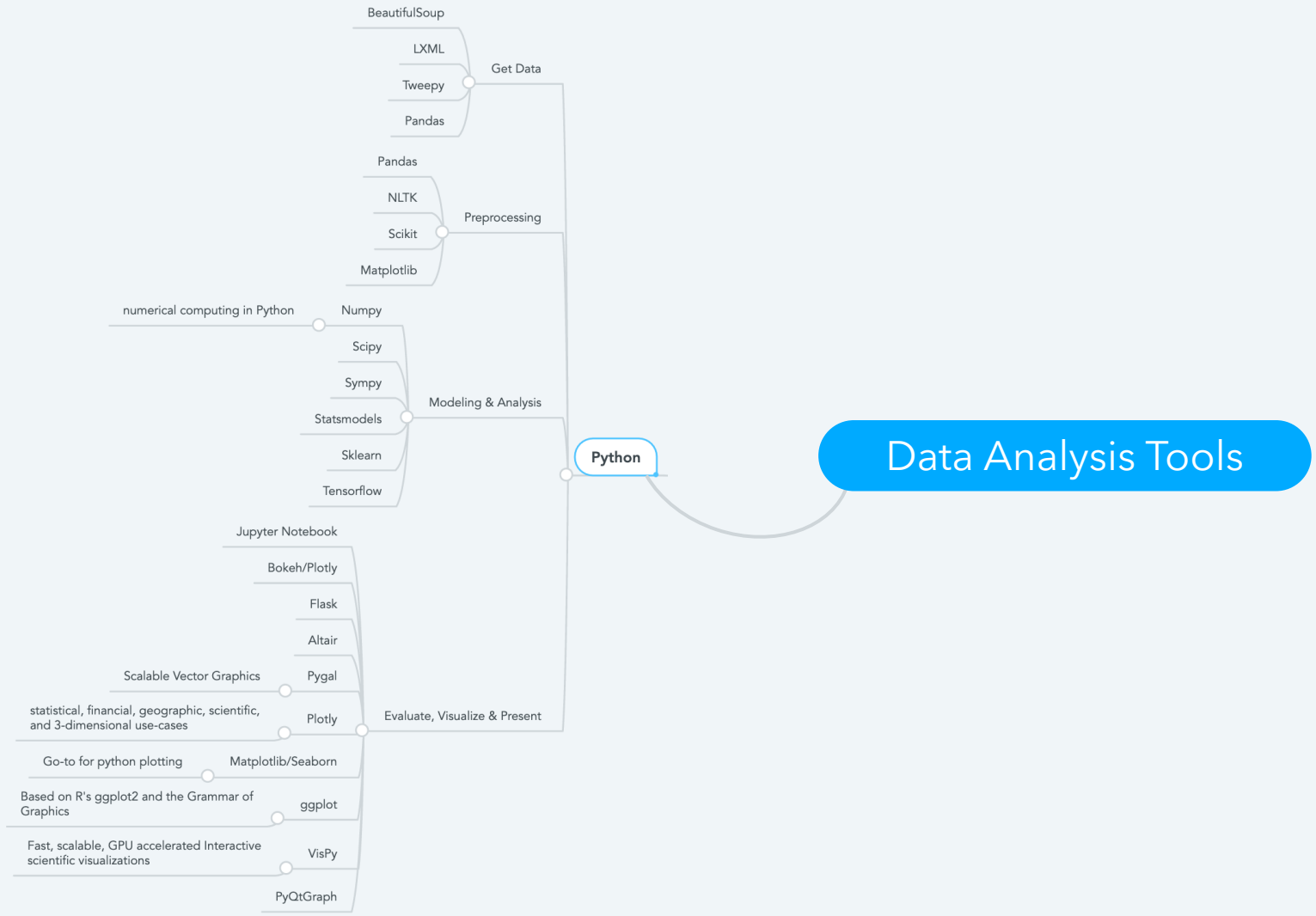
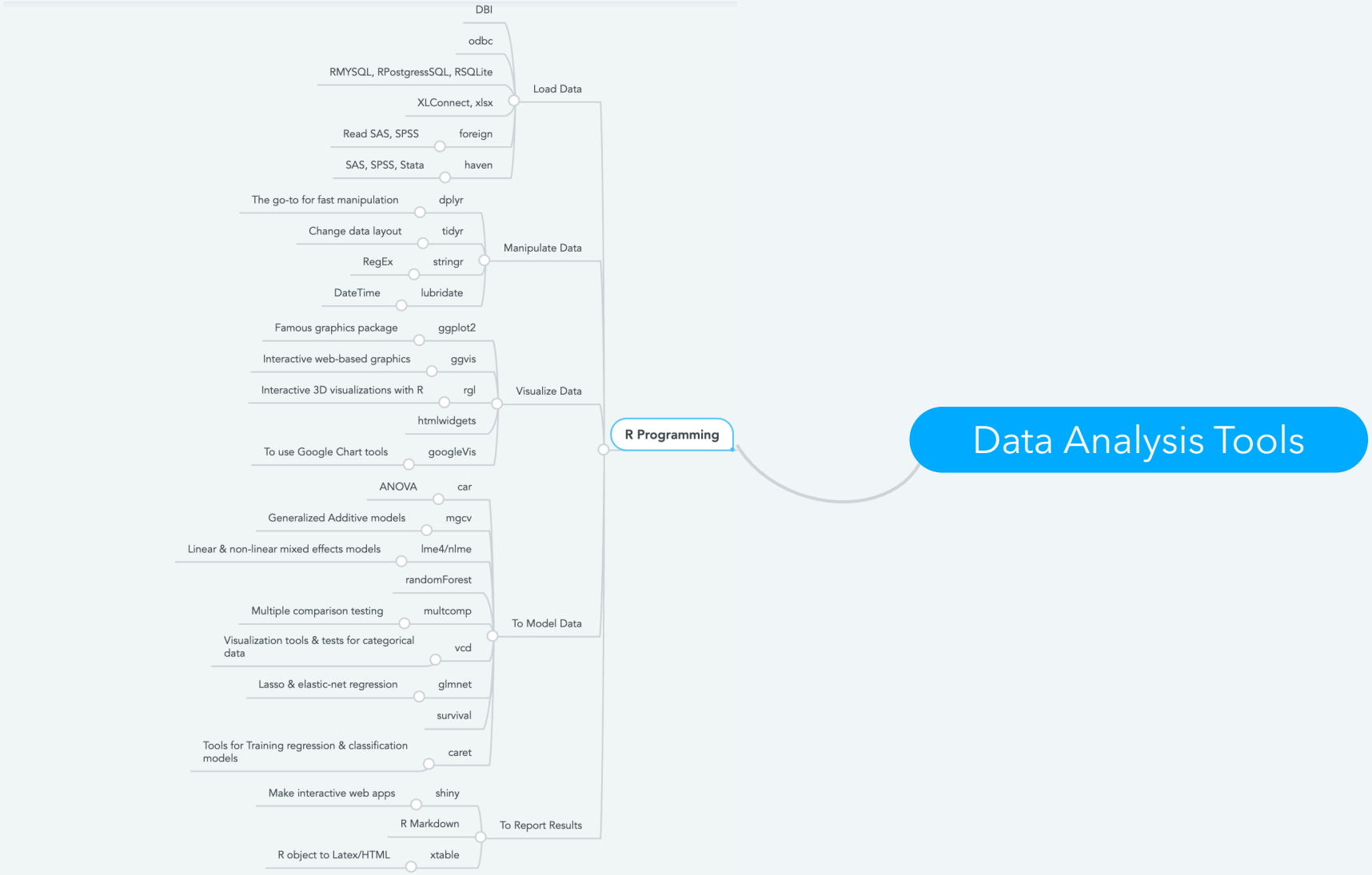
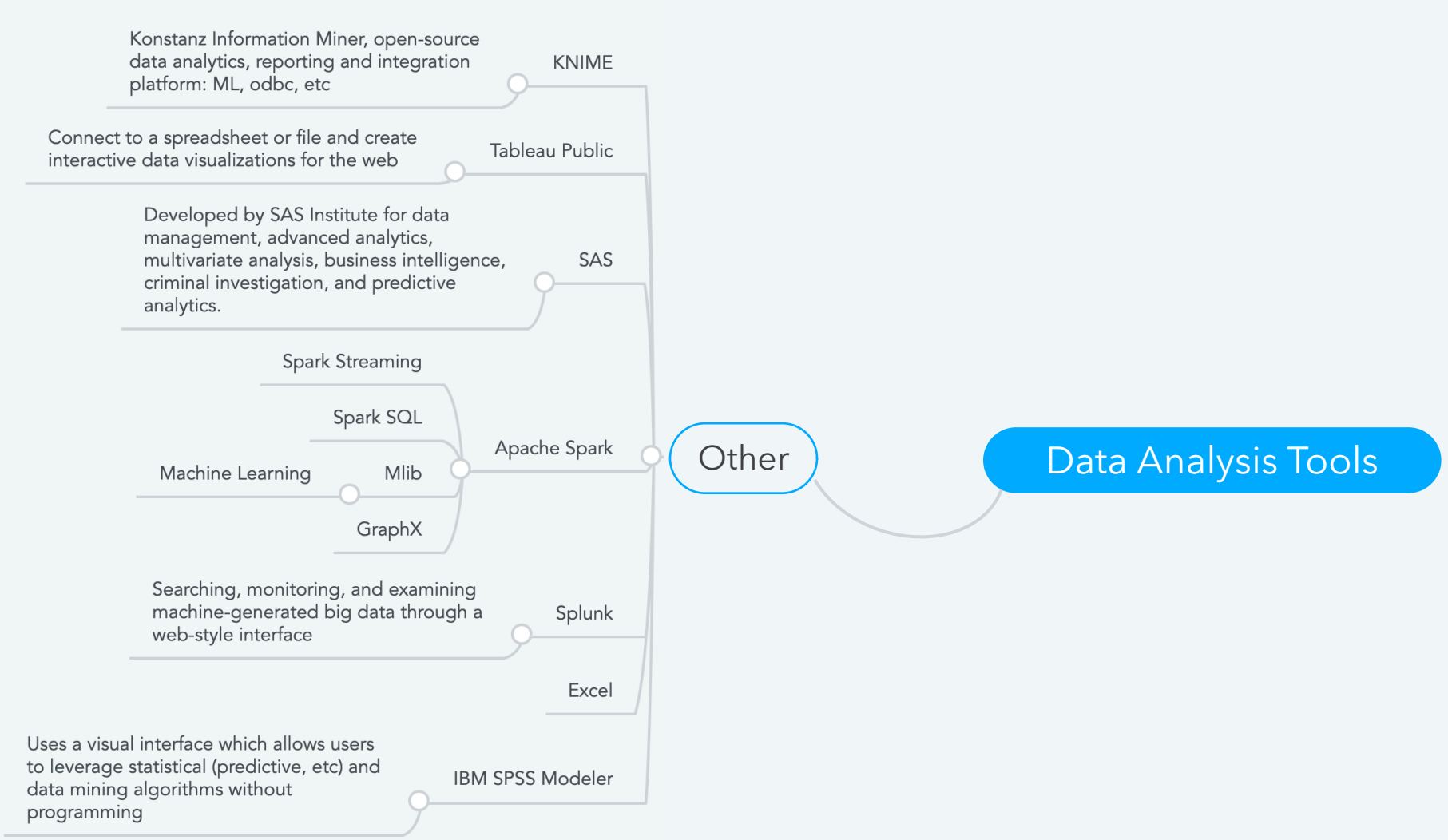
Data Analysis: Python Tools



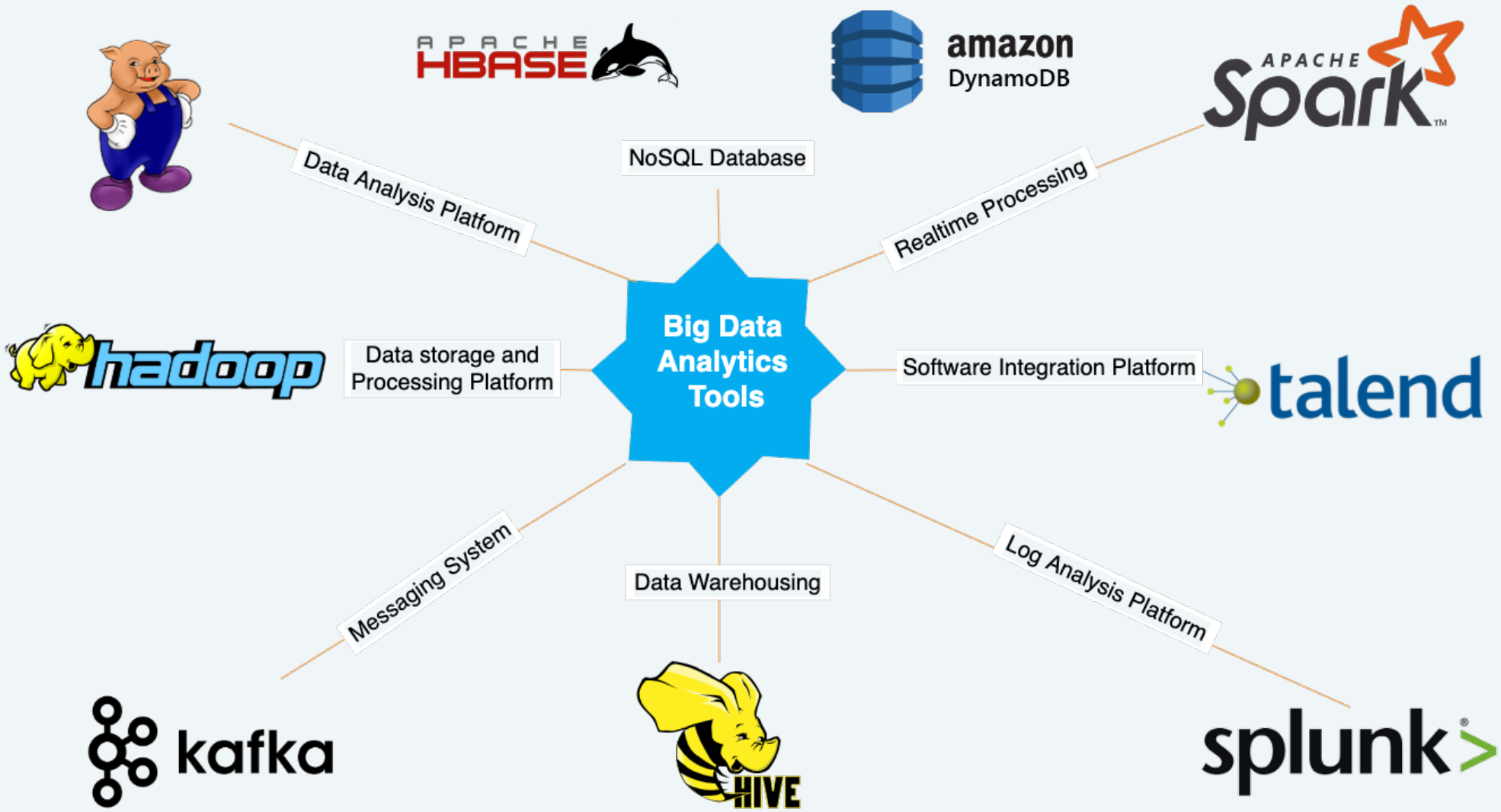
Data Analysis: R Programming Tools



Other Data Analysis Tools



Big Data Analytics Tools



Thank You!

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