

Knowledge Discovery in Databases

Stevens Institute of Technology
Assignment Project Exam Help
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TBD

What is SAS?

- Developed in the early 1970s at North Carolina State University
- Originally intended for management and analysis of agricultural field experiments
- Now the most widely used statistical analysis package
- Used to stand for "Statistical Analysis System", now it is just an acronym

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SAS is a Procedural language

Procedural programming is a programming paradigm, derived from structured programming, based upon the concept of the procedure call. Procedures, also known as routines, subroutines, or functions (not to be confused with mathematical functions, but similar to those used in functional programming), simply contain a series of computational steps to be carried out. Any given procedure might be called at any point during a program's execution... ,

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wikipedia

SAS Advantages

- Reliable/standard technical support
- Relatively simple but very powerful programming language for data manipulations
- Easy access to multiple data sources and software packages
- Well documented SAS packages
- Use of disk space
- Strong graphics and reporting
- SAS functionality is based on consumer demand (voluntary).
- Runs on almost any standard computing platform and operating system.

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Disadvantages

- Very expensive
- Does not run modern tablets, phones, PDAs, and game consoles (big foot print)
- Has infrequent releases

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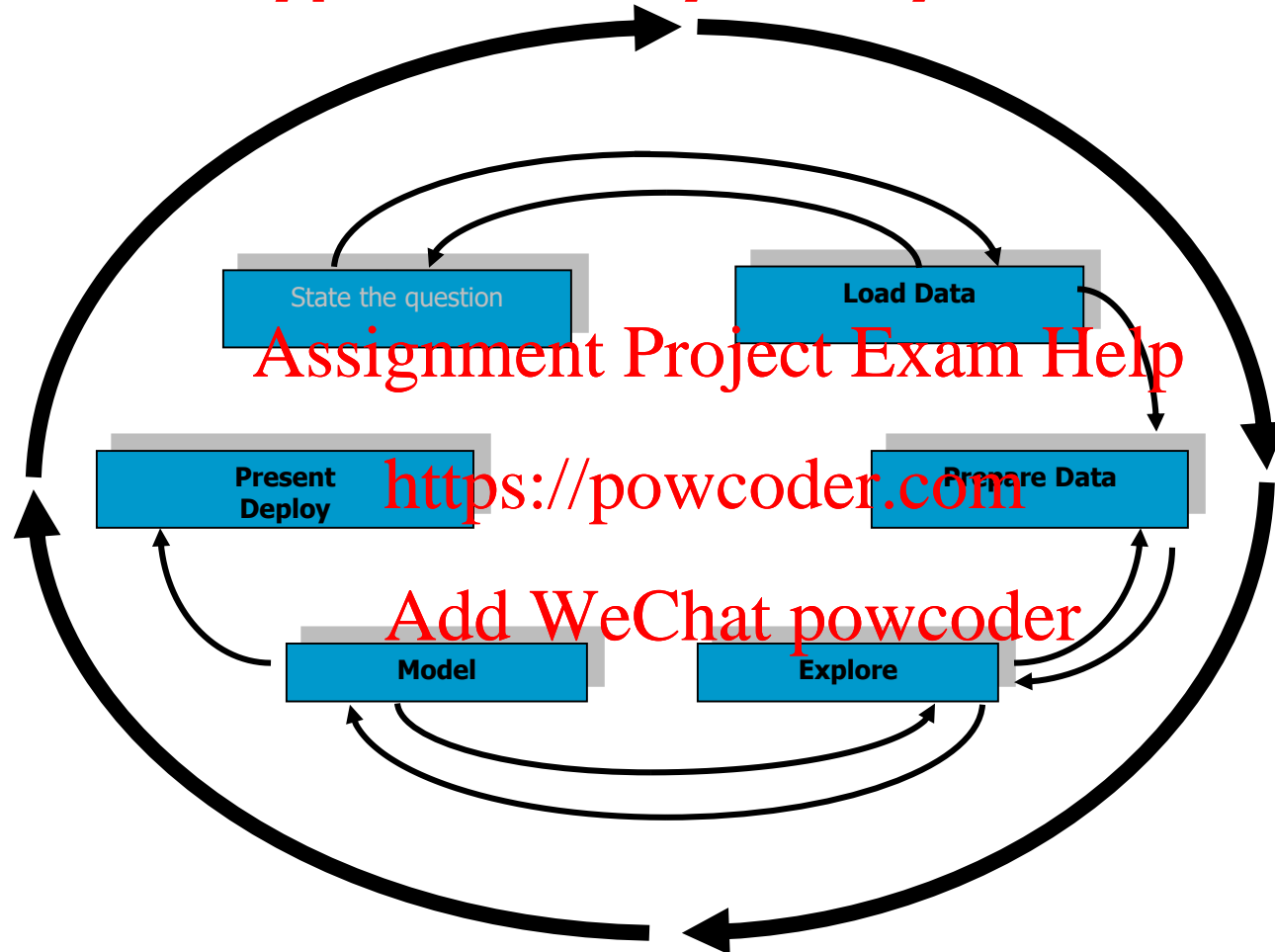
Course Objectives

After this course you will be:

- Functional in SAS programming
- Able to perform simple analysis in SAS
- Able to produce simple output
- Capable of extending your SAS knowledge and abilities

But you will not become a SAS programmer

Typical Analysis Cycle



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SAS Basic Concepts

- Access/Load the data
- Clean and Manipulate the data
- Analyze/Explore the data
- Model the data
- Produce , Present , and Deploy the results

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Typical SAS Program Components

- Data Steps Data manipulation and data cleansing, basic analysis and reporting
- Procedures (Proc) Procedures for analysis and/or presentations
- Global Statements Managing the programming environment
- Macro Statements Automation of repeated data steps and/or procs
- Command Line commands

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Overview of Some SAS Products

- Base SAS **Assignment Project Exam Help**
Data manipulation, basic and reporting procedures, e.g.
- SAS ACCESS <https://powcoder.com>
Access to databases and engines
- SAS/STAT **Add WeChat powcoder**
Statistical analysis
- SAS/GRAPH Presentation quality graphics

Getting Help

- <http://support.sas.com/>

- Documentation
- Submit a problem

note: run "proc setinit noalias;run;" to get the site number

Original site validation data

Site name: 'STEVENS INSTITUTE OF TECHNOLOGY.....'.

Site number: xxxxxxxx.

Expiration: xxxxxxxx

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Agenda

- Navigate the SAS windowing environment
- Read various types of data into SAS data sets
- Create SAS variables and subset data
- Combine or create multiple SAS data sets
- Perform simple analysis
- Create and enhance listing and summary reports

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Source of the Datasets

- <http://www.crcpress.com/product/isbn/9781439816806> Assignment Project Exam Help
- SAS Institute Training Datasets <https://powcoder.com>
- SAS Supplied Datasets Add WeChat powcoder

SAS Program Data Vector (PDV)

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SAS Program Data Vector

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