IASUG
Iowa SAS Users Group

Iowa SAS® Users Group
The 14th One-Day Conference

Monday, May 13, 2024

Carver Conference and Learning Center
Corteva Agriscience

http:www.iowasasuser.org/Registration2024

§.sas
Official SAS®
Users Group

Message from Conference Chair

Jeremy Mitchell

John Xu

Dear fellow SAS® Users, This year's annual Iowa SAS® Users Group conference will be held on May 13th, 2024. Our in-person conference is a great opportunity for Iowa SAS® users and their colleagues and friends to get together for team building, to network and meet or get reacquainted with other fellow SAS® users, exchange ideas, and potentially discover and/or share job/contracting opportunities.

The program will allow you to choose from 3 concurrent presentation sessions that will be held in separate rooms. Presentation sessions are scheduled to allow for 10 minute breaks in between sessions. This year, we have invited SAS® Institute speakers, Lincoln H. Groves, Jacqueline (Jackie) Johnson and Charu Shankar. We also welcome back professional trainer/"SASNerd" Kirk Lafler, and will also have local SAS® guru Simon Geletta joining us to share some of his knowledge with us as well.

During morning registration time and lunch break, you will have a valuable opportunity to share concepts and ideas, and for networking, to expand your familiarity with your fellow SAS® users within the community here in the Des Moines Metro area. We encourage you to bring your business cards and expand your network within the SAS® community. There will be a bulletin board where contract opportunities, related events, and other announcements can be affixed. We also encourage hiring managers and consultants seeking contracts to bring your job requirements in hard copy for distribution.

We'll end the conference by holding a closing session where door-prizes (which include a laptop computer and much, much more) are given away before we wrap up the conference. You don't want to miss the closing session, so stick around!

Your Conference Chairs,

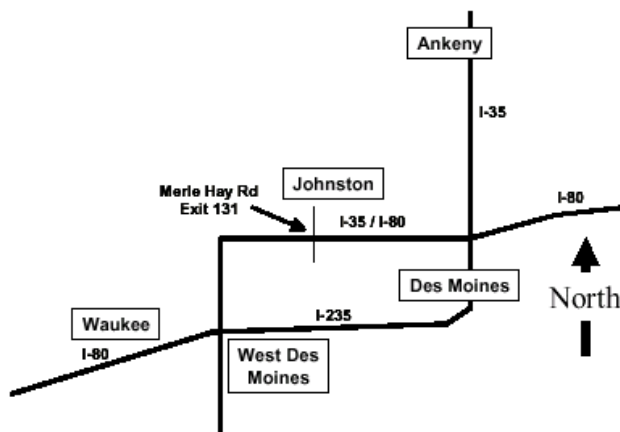Jeremy Mitchell and John Xu
Iowa SAS® Users Group

Conference Committee

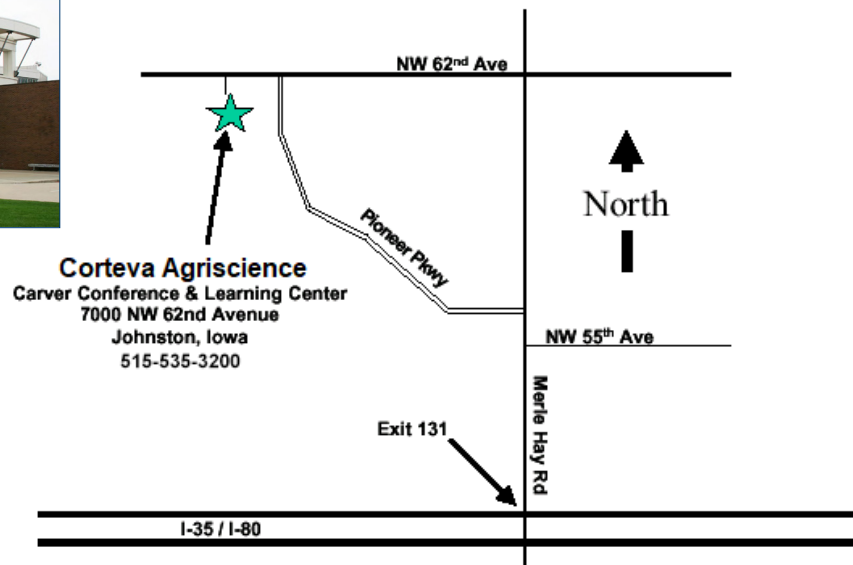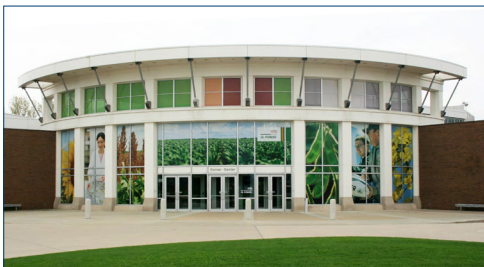|	
Mark Hinds	Section Chair #1, Boehringer-Ingelheim Animal Health USA
Emilio Serrano	Section Chair #2, free-lance consultant
Alexander Ollerton	Section Chair #3, Wells Fargo & Company
Lizhi Feng	Registrar, Corteva Agriscience
Simon Geletta	Web Master, Knowledge Delivery Services, LLC

Conference Information

This one-day conference will provide an opportunity to enhance your SAS® skills and improve your understanding of the SAS® System. There will be 3 concurrent sessions throughout the day! We've invited speakers from SAS® Institute, as well as other industry experts to join us to share their SAS® knowledge and coding tips. Online Registration will start over one month prior to the conference. We are once again offering a free registration to everybody!

- **Free Registration - Again!!**
- **Network with Fellow SAS® Users**
- **Learn from the SAS® Pro's**
- **3 Concurrent Sessions**

**Directions to Corteva Agriscience
Carver Conference and Learning Center**

From I-80/35 take the Merle Hay Road exit #131. At the exit ramp, go north onto Merle Hay Road. Take Merle Hay Road north about 1 mile to Pioneer Parkway and turn west (left). Follow this divided boulevard all the way to its end at NW 62nd Avenue. Turn left to head west on NW 62nd Avenue. Continue to the main Corteva Agriscience entrance. Turn left onto the main driveway. Park in the designated spaces in front of the building or in the lot across the drive.

Corteva Agriscience
Carver Conference & Learning Center
7000 NW 62nd Avenue
Johnston, Iowa
515-535-3200

Conference Information

Date:	Monday, May 13, 2024
Location:	Carver Conference and Learning Center (See map and direction on page 3) Corteva Agriscience, 7000 NW 62nd Ave., Johnston, Iowa 50131
Online Registration:	**https://www.eventbrite.com/e/iowa-sas-users-group-the-14th-one-day-conference-tickets-863344726317?aff=oddtdtcreator**
Registration Fee:	Free registration for every attendee.
Cancellation Policy:	Please cancel your registration online or send an email to dsm1day@yahoo.com.
Schedule:	7:15 a.m.　　Arrive early for breakfast and networking 7:45 a.m.　　Check-in 9:00 a.m.　　Opening Session 9:30 a.m.　　3 concurrent sessions 12:20 p.m.　　Lunch 1:30 p.m.　　Afternoon sessions 4:30 p.m.　　Closing session (to conclude by 4:50 p.m.) See Conference Schedule for more details.
Breakfast/Lunch:	Free breakfast and lunch are provided to all attendees. Coffee will be served through the day.
Hotel:	If you need to stay in a local hotel, you may call the following hotels for a reservation. Please mention that you are attending a meeting at Corteva Agriscience to get the special rate. It is up to hotel to decide if you qualify for the discount rate. (1) Stoney Creek Inn, 5291 Stoney Creek Ct., Johnston　　　　　(515) 334-9000 (FREE Wireless Internet, Airport Shuttle, Shuttle to Corteva Agriscience, Breakfast) 　　　　　　　　　　　　　　　　　　　　　　　　　　　　(515) 727-4066 (2) Towneplace Suites, 8800 Northpark Dr., Johnston (FREE Wireless Internet, Breakfast) (3) Additional hotels with corporate discount: Hilton Garden Inn Des Moines/Urbandale, Comfort Suites at Living History Farms, Drury Inn in West Des Moines, Sheraton West Des Moines Hotel.
Questions:	Please contact John Xu: johnxu@1st-consulting.com, (515) 778-4093

Conference Schedule

05/13	Session 1 (Room A: Auditorium) SAS Presents	Session 2 (Room D) Programming	Session 3 (Room E) Viya
7:45 - 9:00 a.m.	Check In & Network -- Breakfast Sponsored by ⑤sas		
9:00 - 9:20 a.m.	Opening Session		
9:30 - 10:20 a.m.	Top 10 SAS® Efficiency Hacks Charu Shankar (13)	An Introduction to PROC SQL Kirk Paul Lafler (1)	Paving the Way with SAS® Viya®: Analytics in the Cloud Lincoln Groves, SAS® (10)
10:30 - 11:20 a.m.	Excel in SAS® Charu Shankar (14)	An Introduction to SAS® DATA Step Hash Programming Kirk Paul Lafler (2)	Navigating the Transition to SAS® Viya: Migrating workloads from SAS® 9.4 to SAS® Viya in the Cloud Simon Geletta (7)
11:30 a.m. - 12:20 p.m.	SAS® things that come in Twos for the newbie SAS® user Charu Shankar (15)	Benefits, Challenges, and Opportunities with Open-source Software (OSS) Integration Kirk Paul Lafler (3)	Embracing the New Era: Programming in SAS® Viya for SAS 9.4 Experts Simon Geletta (8)
12:20 - 1:30 p.m.	Lunch Sponsored by ⑤sas		
1:30 - 2:20 p.m.	Hierarchical Linear Models Using SAS® (1.5-hour) Jackie Johnson, SAS® (16)	Regression Analysis Made Easy Using SAS® Studio Zheyuan "Walter" Yu (4)	SAS® Viya Tour: What Makes SAS® Viya Special (2-hour hands-on Workshop) Lincoln Groves,SAS (11)
2:30 - 2:50 p.m.		Creating Custom Excel Spreadsheets with Built-in Autofilters Using SAS® Output Delivery System (20-min) Kirk Paul Lafler (5)	
3:00 - 3:20 p.m.	Longitudinal Data Analysis Using SAS® (1.5 hour) Jackie Johnson, SAS® (17)	Ten Rules for Better Charts, Figures and Visuals (20-min) Kirk Paul Lafler (6)	
3:30 - 4:20 p.m.		From Code to No-Code: Alternative Paths for Data Analysts Lincoln Groves, SAS® (9)	Programming for SAS® Viya Users Charu Shankar, SAS (12)
4:30 - 4:50 p.m.	Closing Session/Door Prize (Laptop computer and More)		

Conference Schedule

5/15 AM 8:30 a.m. - 12:00 p.m.	5/15 PM 1:00 p.m. – 4:30 p.m.	5/16 AM 8:30 a.m. – 12:00 p.m.	5/16 PM 1:00 p.m. – 4:30 p.m.
Building Reusable Tools Using the SAS® Macro Language Registration Fee: $200	**Advanced PROC SQL Programming Concepts and Techniques** Registration Fee: $200	**SAS® Performance Optimization Techniques** Registration Fee: $200	**Data Driven Programming Tchniques Using SAS®** Registration Fee: $200

Instructor:

Kirk Paul Lafler
sasNerd
SAS / SQL / Python Educator, Developer, Programmer, Consultant, Data Analyst, and Author
KirkLafler@cs.com
@sasNerd
https://www.linkedin.com/in/KirkPaulLafler

Registration:

5/15 AM Building Reusable Tools
https://www.eventbrite.com/e/building-reusable-tools-using-the-sas-macro-language-tickets-850721780747?aff=oddtdtcreator

5/15 PM Advanced PROC SQL
https://www.eventbrite.com/e/advanced-proc-sql-programming-concepts-and-techniques-tickets-851328555627?aff=oddtdtcreator

5/16 AM SAS® Performance
https://www.eventbrite.com/e/sas-performance-optimization-techniques-tickets-851348334787?aff=oddtdtcreator

5/16 PM Data Driven Techniques
https://www.eventbrite.com/e/data-driven-programming-techniques-using-sas-tickets-851397130737?aff=oddtdtcreator
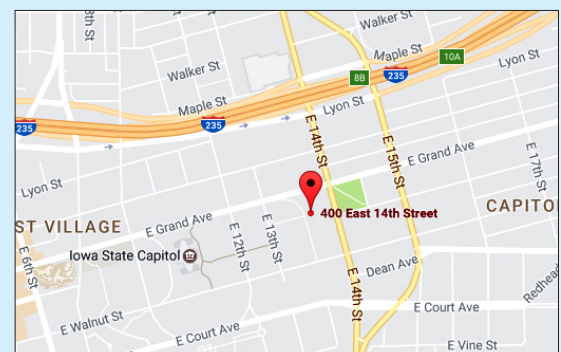
Location:
Iowa Department of Education
Basement level, Room B100
400 E. 14th St., Des Moines, IA 50319

Parking:
In front of the building on the west side.

Lunch:
Provided if you are taking class the full day

Question:
If you would like to pay by check to save online processing fee, or have any questions, please contact John Xu

- 515-778-4093
- johnxu@1st-consulting.com

Presentation Abstracts

(1) An Introduction to PROC SQL

Kirk Paul Lafler

Structured Query Language (SQL) is a database language that is available in the base-SAS software. PROC SQL lets users access data stored in data sets or tables in relational data base management systems (RDBMS) using statements, clauses, options, functions, and other language constructs. Topics include introductory concepts and SQL applications for SAS® users who desire an overview of the powerful SQL procedure and its capabilities; an assortment of basic SQL queries to retrieve, subset, order and group data and results; perform simple join operations using two and three tables; create new tables; and the application of conditional logic scenarios using case expressions.

(2) An Introduction to SAS® DATA Step Hash Programming

Kirk Paul Lafler

SAS® supports a DATA step programming construct known as hash objects that enables faster table lookup, search, merge, sort, and transpose operations. By constructing a hash object, users are able to associate a key with one or more values. Topics include introducing what a hash object is, how a has object works, the syntax required, along with essential programming techniques to define a simple key, sort data, search memory-resident data using a simple key, match-merge (or join) two data sets, handle and resolve collision scenarios where two distinct pieces of data have the same hash value, as well as more complex programming techniques that use a composite key to search for multiple values.

(3) Benefits, Challenges, and Opportunities with Open-source Software (OSS) Integration

Kirk Paul Lafler

The open-source world is alive, well and growing in popularity. This paper highlights the many benefits found with open source software (OSS) including its flexibility, agility, talent attraction, and the collaborative power of community; the trends show that open-source is ubiquitous penetrating many critical technologies we depend on, where more technology companies recognize the importance of the open-source community leading to more initiatives and sponsorships that support open-source creators; the challenges of open source including compatibility vulnerability issues, security limitations, intellectual property issues, warranty issues, and inconsistent developer practices; and the opportunities coming out of the open source community including cloud architecture, open standards, and the collaborative nature of community.

(4) Regression Analysis Made Easy Using SAS® Studio

Zheyuan "Walter" Yu

SAS® OnDemand for Academics (ODA) provides students, faculty, and SAS® learners with free access to SAS® software and the SAS® Studio user interface using a web browser. SAS® Studio provides a comprehensive and customizable integrated development environment (IDE) for all SAS® users. To showcase SAS® Studio's many features, numerous techniques will be introduced to access, clean, transform, analyze, and visualize data using the point-and-click features found in SAS® Studio's Navigation Pane's Tasks and Utilities. Plus, we'll demonstrate the generated SAS® code that is automatically produced from the point-and-click techniques. To obtain a high-level understanding of the datasets being used, we'll demonstrate tasks associated with exploratory data analysis (EDA) to identify missing values, explore outliers, and evaluate trends in the data. Two types of regression will be demonstrated – simple linear regression where one independent variable is used to explain or predict the outcome of the dependent variable and multiple linear regression where two or more independent variables to explain or predict the outcome of the dependent variable to assist with decision-making activities. Key takeaways will be provided to assist in learning regression analysis techniques using effective examples.

(5) Creating Custom Excel Spreadsheets with Built-in Autofilters Using SAS® Output Delivery System (ODS)

Kirk Paul Lafler

Spreadsheets have become the most popular and successful data tool ever conceived. Current estimates show that there are more than 750 million Excel users worldwide. A spreadsheet's simplicity and ease of use are two reasons for the growth and widespread use of Excel around the globe. Additional value-added features have also helped to expand the spreadsheet usefulness among a growing number of users including its collaborative capabilities, being customizable, ability to manipulate data, application of data visualization techniques, mobile device usage, automation of repetitive tasks, integration with other software, data analysis, and filtering capabilities using autofilters. This last value-added feature, filtering with autofilters, is the theme for this paper. An example application will be illustrated that creates a custom Excel spreadsheet with built-in autofilters, or filters that provide users with the ability to make choices from a list of text, numeric, or date values to find data of interest quickly, using the SAS® Output Delivery System (ODS) Excel destination and the REPORT procedure.

(6) Ten Rules for Better Charts, Figures and Visuals

Kirk Paul Lafler

The production of charts, figures and visuals requires displaying data in the best way possible. However, this process is far from direct or automatic. There are so many different ways to represent the same data – histograms, scatter plots, bar charts, line charts and pie charts, to name just a few. Furthermore, the production of a visual may be perceived very differently depending on the application of various elements including color, shading, gradients and other elements. To ensure the production of the most useful charts, figures and visuals it is essential to adhere to the following guidelines – use the best visual for your data, present information in a non-confusing manner, and is neat and readable allowing information to be easily understood. This presentation highlights the work of Nicolas P. Rougier, Michael Droettboom, and Philip E. Bourne by sharing ten rules to improve the production of charts, figures and visuals.

(7) Navigating the Transition to SAS® Viya: Migrating workloads from SAS® 9.4 to SAS® Viya in the Cloud

Simon Geletta

In the rapidly evolving landscape of data analytics, the migration from SAS® 9.4 to SAS® Viya in the Cloud marks a significant step forward in leveraging the power of cloud computing and modern analytics capabilities.

This presentation is designed for professional SAS® programmers seeking a comprehensive understanding of the critical phases involved in this migration process:
* pre-migration phase activities (includes a high-level discussion of deployment options and activities),
* migration phase activities, and
* post-migration phase activities.

After completing this session attendees will be able to understand the need for a phased transition to SAS® Viya, recognize the technological components (hardware and software) that support a successful transition to SAS® Viya, and list the steps required for a successful transition from a typical SAS® 9.4 client/server environment to SAS® Viya environment.

Presentation Abstracts

(8) Embracing the New Era: Programming in SAS® Viya for SAS® 9.4 Experts

Simon Geletta

As the SAS® statistical computing platform continues to evolve, embracing its latest platform, SAS® Viya, presents both exciting opportunities and new challenges for programmers well-versed in SAS® 9.4. Much like the transition from SAS® 8.x to SAS® 9.x presented programmers with some powerful features and some challenges that required learning curve, the transition from SAS® 9.4 to SAS® Viya will come with some challenges and some powerful features.

This presentation is tailored for SAS® 9.4 experts, aiming to bridge the gap between the familiar environment of SAS® 9.4 and the innovative features of SAS® Viya. The session focuses on the transition to SAS® Viya programming, highlighting the similarities to SAS® 9.4 and introducing key new features and capabilities that SAS® Viya offers.

(9) From Code to No-Code: Alternative Paths for Data Analysts

Lincoln Groves, SAS Institute

If you're like me, you might think, "I'm an expert SAS® programmer... why should I care about the newer no-code options on the SAS® Viya platform?" Well, this presentation strives to make a believer out of you! Although coding gives you the ultimate flexibility in analytics, there are a whole host of tasks in the analytics life cycle (such as exploratory data analysis and preliminary machine learning models) where iterating quickly is much better than exercising our coding muscles. So, learn where no- and low-code tools in SAS® Visual Analytics, Model Studio, and SAS® Studio can support you in the more mundane analytical tasks and get you onto the good stuff more quickly.

(10) Paving the Way with SAS® Viya®: Analytics in the Cloud

Lincoln Groves, SAS Institute

In this workshop, learn about how SAS® software has advanced considerably over the past decade. We will discuss why and how SAS's software has evolved (hint: the answer contains the words "big data" and "the cloud"). Moreover, explore how SAS's evolution of no/low-code tools can significantly reduce the barriers to teaching analytics - and, how SAS® easily incorporates tools from the open-source community.

(11) SAS® Viya Tour: What Makes SAS® Viya Special

Lincoln Groves, SAS Institute

Let's face it: Many coders know and love the SAS®9 windowing environment. Yet, as data become more readily available, it can be difficult to keep up with all the analytical requests, especially when we're doing all the coding. The solution: Let SAS® be your research analyst extraordinaire! From SAS® Visual Analytics to Model Studio to SAS® Studio, we'll show you how no-code and low-code tools on the SAS® Viya platform speed up your analysis and increase your time to value. We're not trying to get you to give up the coding. We're simply providing you ways to automate some of the stuff you'd rather not code!

(12) Programming for SAS® Viya Users

Charu Shankar

How's SAS® different from CAS. What is a Compute Server vs. A Cloud Analytic Server. Learn through the yummy analogies of SAS® instructor-yoga teacher & chef, Charu who drew from her experience of cooking in a yoga retreat in the Bahamas for over 300 guests to understand the distinction between SAS® & CAS. You too can learn the concepts. if techie terminology has your head all wound up in circles, then this session is just for you. Learn how you can stretch your knowledge of SAS® programming concepts to beautifully write CAS code with just a few simple tweaks.. all this & much more in this session, All levels welcome. Some basic knowledge of SAS® programming will help you get more value out of this session.

Presentation Abstracts

(13) Top 10 SAS® efficiency hacks

Charu Shankar

Whether you are an expert programmer or just beginning to use SAS® code, you will certainly appreciate the finer nuances that make for an efficient SAS® program. You understand that you can improve efficiency, cut down time by these best practices. Learn what SORT mechanism is smart, where the Length statement should be ideally placed, which is better, DROP/ KEEP Options/statement. When to use Proc SQL over the data step, or vice versa. Which conditional processing algorithm to use & when & much, much more.

(14) Excel in SAS®

Charu Shankar

Excel and SAS® are universally loved. Both have their strengths. Excel has been around a long time and many non SAS® users use the spreadsheet to enter & manage their transactions. SAS® is great for analyzing data.

(15) SAS® things that come in Twos for the newbie SAS® user

Charu Shankar

Ever wondered about The display manager and Enterprise guide and what these 2 tools do.

- Wondered about the difference between a PROC step and a DATA step?
- Wondered about the 2 parts of a dataset?
- Wondered about the 2 types of data SAS recognizes?

Whether you are a new SAS® user or have been using SAS® for a short while, this session is for you. Get answers to all the questions above and much, much more. Come set a strong foundation for your SAS® knowledge in this lunch n learn.

(16) Hierarchical Linear Models Using SAS®

Jackie Johnson

Do you have clustered, nested, or hierarchical data? Analysis of these types of data pose challenges to traditional data analysis because observations from micro-units that share the same macro-unit are expected to be correlated. Learn how to use PROC MIXED to fit models for multilevel data. Several applied examples will be shown including two- and three-level models applied to both clustered and longitudinal data.

(17) Longitudinal Data Analysis Using SAS®

Jackie Johnson

The objectives of longitudinal data analysis are to examine and compare responses over time. Learn the basics of how to fit mixed models to longitudinal data with continuous or discrete outcomes using PROC MIXED and PROC GLIMMIX. Examples will additionally introduce theoretical concepts of mixed models and describe the importance of choosing the correct covariance structure to model the error in longitudinal data.

SAS® Training Courses

(1) Building Reusable Tools Using the SAS® Macro Language

Kirk Paul "sasNerd" Lafler

05/15   8:30 am - 12:00 pm

Iowa Department of Education.
Room B100
400 E. 14th St., Des Moines, IA 50319

Half-day course. Registration Fee: $200

Registration:

https://www.eventbrite.com/e/building-reusable-tools-using-the-sas-macro-language-tickets-850721780747?aff=oddtdtcreator

If you would like to pay by check to save online processing fee, contact John Xu at johnxu@1st-consulting.com.

Course Description:

The SAS® Macro Language is a powerful feature in the Base SAS® software for extending and customizing the capabilities of the SAS® System. This course presents a practical approach to macro tool design and development, along with a collection of techniques for constructing reusable and effective macros tools. Attendees learn basic design principles in the development of reusable macro tools; how to build functional macros that process SAS® statement code using efficient and portable code; the different methods of creating macro variables including using the macro   PROC SQL interface to create single-value and value-list macro variables; how to create user-defined macro routines that accept keyword and positional parameters; utilize and implement defensive programming techniques to make your macro routines smarter; explore how to build a library of macro utility tools; and macro debugging and troubleshooting code errors, warnings, and other special messages.

Intended Audience: All SAS Users

Prerequisites: Introduction to SAS® Macro course or minimum 1-year SAS® software

Delivery Method: experience Instructor-led with code examples.

Course Material: e-Course Notes (PDF format) and code are provided to Attendees.

(2) Advanced PROC SQL Programming Concepts and Techniques

Kirk Paul "sasNerd" Lafler

05/15   1:00 p.m. - 4:30 p.m.

Iowa Department of Education.
Room B100
400 E. 14th St., Des Moines, IA 50319

Half-day course. Registration Fee: $200

Registration:

https://www.eventbrite.com/e/advanced-proc-sql-programming-concepts-and-techniques-tickets-851328555627?aff=oddtdtcreator

If you would like to pay by check to save online processing fee, contact John Xu at johnxu@1st-consulting.com.

Course Description:

The power of PROC SQL as a database programming language is well known with SAS® users around the world. This course presents advanced PROC SQL concepts and programming techniques to exploit the power of SQL as a programming language to access, manipulate, restructure, and validate data. Attendees learn how to apply unique coding techniques including determining the number of rows in all input tables, identifying the tables with the most indexes, handling nearest neighbor problems, and identifying and accessing FIRST.row, LAST.row, and BETWEEN.rows while processing By-group; the application of rule-based and cost-based optimization strategies influencing the SQL optimizer to choose from the available join algorithms; "fuzzy" matching techniques; the application of "virtual" tables known as views; the strategies related to the design and implementation of simple and composite indexes; constructing table validation rules using table integrity constraints; and exploring select query performance tuning techniques for big data environments.

Intended Audience:	All SAS and SQL users
Prerequisites:	Introductory / Intermediate SQL course, SAS® Essentials course and 1-year SAS® software experience
Delivery Method:	Instructor-led workshop with code examples
Course Material:	e-Course Notes (PDF format) and code are provided to Attendees.

SAS® Training Courses

(3) SAS® Performance Optimization
Kirk Paul "sasNerd" Lafler

05/16   8:30 am - 12:00 pm

Iowa Department of Education.
Room B100
400 E. 14th St., Des Moines, IA 50319

Half-day course. Registration Fee: $200

Registration:

https://www.eventbrite.com/e/sas-performance-optimization-techniques-tickets-851348334787?
aff=oddtdtcreator??

If you would like to pay by check to save online processing fee, contact John Xu at johnxu@1st-consulting.com.

Course Description:

In an era of big data and rapidly changing technologies, programmers and developers design software adhering to a specified set of functionalities and the assumption that their program code will run on processors with limited computational power. Adding to these issues, performance and/or efficiency aspects are often given little attention or simply ignored to ensure that program code uses the fewest resources (i.e., CPU, I/O, storage, and memory) possible. This course presents valuable techniques to control, manage, and optimize program execution, I/O, memory, disk space, and program maintenance activities to deliver faster results while reducing the demand for limited resources. Topics include SAS® optimization techniques to enable your code to run faster, reduce input/output (I/O) operations, and affect storage demands by utilizing efficient coding constructs and functions, removing redundant code, eliminating dead code, leveraging memory speeds, avoiding type conversions, assigning system options to optimize processing efficiencies, using arrays and user-defined formats for table lookup operations, organizing conditional statements by frequency of occurrence, optimizing looping scenarios, accessing data subsets sequentially or with indexes, and the application of other scalable techniques.

Intended Audience:	All SAS and SQL users
Prerequisites:	Minimum 1-year SAS® programming experience
Delivery Method:	Instructor-led workshop with code examples
Course Material:	e -Course Notes (PDF format) and code are provided to Attendees.

SAS® Training Courses

(4) Data-driven Programming Techniques Using SAS®

Kirk Paul "sasNerd" Lafler

05/16   1:00 pm - 4:30 pm

Iowa Department of Education.
Room B100
400 E. 14th St., Des Moines, IA 50319

Half-day course. Registration Fee: $200

Registration:

https://www.eventbrite.com/e/data-driven-programming-techniques-using-sas-tickets-851397130737?aff=oddtdtcreator

If you would like to pay by check to save online processing fee, contact John Xu at johnxu@1st-consulting.com.

Course Description:

Data-driven programming is a popular programming paradigm where the data, or data structures, control the flow of a program. Data-driven programming techniques can be applied to structured and unstructured data for filtering, aggregating, transforming and calling other programs. Topics include using SAS® programming techniques to access NLEVELS (for By-group content); using the SQL-macro interface to create single-value and value-list macro variables; using DATA step CALL EXECUTE statements; constructing an external control file to define relationships; using PROC FORMAT with the CNTLIN= option; and using iterative programming constructs and processes with PROC SQL and the Macro language to dynamically create data-driven programs.

Intended Audience:	All SAS and SQL users
Prerequisites:	SAS Essentials course or 6-months SAS software experience
Delivery Method:	Instructor-led workshop with code examples
Course Material:	e -Course Notes (PDF format) and code are provided to Attendees.

Thanks to Our Sponsors!

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Iowa . . . Get ready to plug in to SAS!

Join MWSUG 2024 for a great line-up of formal and informal presentations and discussions, posters, workshops, and social activities.

When: November 14-19, 2024

Where: Milwaukee Marriott West in Waukesha, Wisconsin

Website: www.mwsug.org for more information

What's in it for me: Learning (solving SAS problems, tips and tricks as well as advancements in SAS), great food, fun, socialization, and much, much more!!!!

See you in Milwaukee in November 2024!

Dave Foster, Misty Johnson
MWSUG 2024 Conference Chairs
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Volunteer Signup Form

This conference is made possible by volunteers like you. If you would like to help, please complete the form below and email it to John Xu at johnxu@1st-consulting.com with subject line: IASUG Volunteer. Thanks!

Name_____

Phone_____

Email_____

Please select the volunteer roles you would like to participate in:

☐ **Conference Promotor**

Promote the conference in your company by forwarding announcement to co-workers and coordinating the group registration.

☐ **Registration Coordinator**

Need to come early at 7:15 am on Monday, May 13 to conference site to set up registration table and check attendees in.

☐ **Session Coordinator**

Direct attendees to the proper conference room. Handle out paper if available. Remind speaker about time left. Introduce speaker if asked by Section Chair. Minimum of half day in a session.

☐ **Conference Support**

Provide general support to attendees. For example; assist with Hands-on Workshop set up and close down, help at lunch time...

If you have any questions, please contact John Xu (515-778-4093), johnxu@1st-consulting.com

Biographies

Simon Geletta is an associate professor in the Master of Public Health (MPH) program at Des Moines University in Des Moines, Iowa, where he teaches courses in healthcare research and statistics, community research methods and geographic information systems for healthcare professionals. Dr. Geletta is also the founder of Knowledge Delivery Services, LLC - a systems consulting and service business and a Silver Partner member of the SAS® Alliance Network.

Lincoln H. Groves, Ph.D., leads a team of Analytical Training Consultants with U.S. Academic Programs, a group dedicated to helping train the next generation of analytics talent at post-secondary institutions. As a researcher, he brings together a range of academic, federal, and private sector perspectives. Before joining SAS® in 2018, he was a postdoc in the National Poverty Fellow Program, which provided him joint appointments at the University of Wisconsin, Madison, and the Department of Health and Human Services (HHS) in Washington, DC.

Beyond HHS, Lincoln had two other stints in the federal government   one as an Economic Analyst at the Department of Justice and a second as a Peace Corps Volunteer - and spent roughly 6 years wrangling data and running economic models for a microeconomic consulting firm in DC. Lincoln is highly proficient SAS® and SQL programmer, and is an expert in applied econometric modeling and data visualizations. He holds a Ph.D. from Syracuse University in Public Administration and a M.A. in Applied Economics from Johns Hopkins University

Jacqueline (Jackie) Johnson is a principal analytical training consultant in Global Academic Programs at SAS®. In her role at SAS®, she conducts SAS® software training at academic campuses around the country and works with faculty to support efforts to develop the future analytics workforce. She holds a DrPH in Biostatistics from UNC Chapel Hill. Prior to SAS®, Dr. Johnson's career has focused on statistical analyses of clinical trials data and includes working as a biostatistics faculty in an academic medical school and as a biostatistician in the pharmaceutical industry. She has been teaching with SAS® in commercial and academic settings for 15 years.

Kirk Paul Lafler is an educator, developer, programmer, consultant, and data scientist; currently teaching as a lecturer and adjunct professor at San Diego State University; and teaching SAS®, SQL, Python, Excel, and cloud-based technology courses to users around the world. Kirk has decades of programming experience and specializes in SAS® software, SQL, RDBMS technologies (Oracle, SQL-Server, Teradata, DB2), Python, and other languages and productivity tools. Kirk is the author of the popular PROC SQL: Beyond the Basics Using SAS®, Third Edition (SAS® Press. 2019) and is actively involved with SAS®, SQL, Python, R, ML, and cloud-computing user groups, conferences, and blogs as an Invited speaker, educator, keynote, and leader; and is the recipient of 28 "Best" contributed paper, hands-on workshop (HOW), and poster awards.

Biographies

Charu Shankar With a background in computer systems management. SAS® Instructor Charu Shankar engages with logic, visuals, and analogies to spark critical thinking. Prior to joining SAS®, Charu served in the United Nations managing educational projects for 11 countries in the southeast Asian region and taught computer and spoken language skills at Rotman School of Management, University of Toronto.

At SAS®, Charu curates and delivers unique content on SAS®, SQL, Viya, etc. via the SAS® YouTube channel, SAS® global forum, SAS® Ask the Expert Series, SAS® Training Post, etc.

When not coding, Charu teaches yoga and loves to explore Canadian trails with her husky Miko.

Zheyuan "Walter" Yu is a skilled data analyst with a Master of Science degree in Biostatistics from the University of California, Davis. With expertise in data analysis tools like Python, Excel, R, and SAS, he has honed his analytical abilities through his work in the dental supply industry.

Lizhi Feng is a biostatistician at Corteva Agriscience since 2001. He has been a SAS® user from 1996 as a graduate student. He holds a Master of Science in Statistics and Ph.D. in Plant Genetics and Breeding from North Carolina State University, the birth place of SAS®.

Mark Hinds is a biostatistician for Boehringer-Ingelheim Animal Health USA. Prior to that, he worked for Corteva as a researcher and statistician. With a remarkable career spanning over three decades, he is a highly skilled and experienced SAS programmer dedicated to delivering innovative solutions and insights through data analysis. His extensive journey in the field has equipped him with a profound understanding of statistical programming, data management, and the intricacies of SAS software.

Biographies

Jeremy Mitchell is a Senior Lead Analytics Consultant who has worked within various financial services lines of business within Wells Fargo Bank over the past 22 years. His primary focuses have involved operational control reporting for home lending, and data support for remediation efforts within the home lending and auto financing lines of business. He has 15 years of experience within analytics roles, involving data quality review, risk mitigation, operational controls and statistical reporting. During the last 13 years he has leveraged SAS® primarily as his choice data analytics tool.

Alexander (Alex) Ollerton is a dynamic professional with a diverse background in science and analytics. Armed with a Bachelor's degree in Chemistry and a Master of Data Analytics, Alex has seamlessly blended his academic prowess with practical experience in both healthcare and finance. Currently serving as a senior auditor in the Innovation, Data Enablement, and Audit Support (IDEAS) team at Wells Fargo, Alex thrives in leveraging data analytic tools, like SAS, to support data-driven insights to inform strategic decisions. Beyond his professional endeavors, Alex dedicates his time to various volunteer initiatives, notably serving as the Director of Student Affairs for the Association of Latino Professionals for America (ALPFA). Alex is committed to excellence, leadership, and community empowerment in all facets of his life.

Emilio Serrano has been an Analytical Consultant since 2002. He has experience across different technology platforms, including SAS®. He is currently working as a free-lance consultant, for various consulting and advertising companies. His areas of emphasis include data management, customer experience, machine learning and predictive modeling. He has experience in a variety of industries including Financial Services, Manufacturing and Consumer Goods. He holds an MS in Survey Research from UNL.

John Xu is the Director of Consulting of 1ST Consulting LLC, a West Des Moines based consulting company specialized in SAS® related services. He has over 30 years of SAS® experience in Financial, Insurance, Marketing, Government, Education, and Pharmaceutical industries. John is Vice President of MidWest SAS® Users Group. He is currently leading the activities of Iowa SAS® Users Group and also supporting Nebraska SAS® Users Group.

Iowa SAS® Users Group

Iowa SAS® Users Group is a local users group organized to

- Facilitate communications with SAS Institute, Inc., and among users of SAS® in Iowa

- Instruct members how to better use SAS® programming tools

- Keep members informed about new SAS® versions and products

- Inform and educate the public about the value and benefit of SAS® software.

We have had 13 1-day conferences with attendance range from 125 to 340 at Corteva Agriscience's conference center. The one-day conference is typically scheduled in May or June.

Iowa SAS® Users Group maintains a web site at: http://www.iowasasuser.org.

The meeting information is e-mailed to the members through Yahoo Group IowaSASUser. It is also posted on the web site. The web site has a local SAS® news section and a local SAS® jobs section. Job postings are free although donations are welcome.

There is no membership fee. To join the group, please join the Yahoo group IowaSASUser. You may also send name, company, U.S. mailing address, email address, and work phone to johnxu@1st-consulting.com. Or call John Xu directly at (515) 778-4093

Current Board of Directors:

President	John Xu, 1ST Consulting LLC
Member	Jeremy Mitchell, Wells Fargo
Member	Simon Geletta, Knowledge Delivery Services
Member	Lizhi Feng, Corteva Agriscience

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