**Introduction to Cloud Computing with R in Google Cloud and Amazon Web Services**

**By Dr. Sounak Chakraborty, Associate Professor, Department of Statistics, University of Missouri, Columbia**

**Date: September 19, 2020 (Saturday), 9.00 am – 4 pm CST (attendance online only)**

**All mentioned times are inCST**

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**Software Installation Help Sessions**

Software installation help sessions will be run by Mr. Ranadeep Daw (Graduate Student, Department of Statistics, University of Missouri) through zoom during the following sessions:

* September 18, 2020 Friday 5.00 pm – 7.00 pm:

<https://umsystem.zoom.us/j/96225803954?pwd=VDlwU3RvUHZtY1dKZnAvckVQVFJyZz09>

Meeting ID: 962 2580 3954

Passcode: 230806

* September 19, 2020 Sunday 8.00 am – 10.00 am:

<https://umsystem.zoom.us/j/99155782194?pwd=UW9GckNrZ3h4L2pKaEY5bWNPM01ZUT09>

Meeting ID: 991 5578 2194

Passcode: 654288

* If you are logging in to zoom outside University of Missouri you may need to give the passcode.
* Powerpoint file Softwarerequirements.pptx (attached) contains all information and instruction on required software and other accounts.
* It is advised that you preinstall all libraries as mentioned in your desktop RStudio (Libraries.R).
* Zoom etiquette for short course: Keep your mike and video off during the presentation. Only during the Q&A session you can activate your video and mike while asking question. This policy is adopted to reduce bandwidth congestion.

**Course Schedule**

September 19, 2020, 9 am. - 4 pm. CST:

 Join Zoom Meeting: <https://umsystem.zoom.us/j/92266410039?pwd=Zlg2SUZocDg1VnUrS0ZVemJkTDMrdz09>

Meeting ID: 922 6641 0039

Passcode: 314319

If you are logging in to zoom outside University of Missouri you may need to give the passcode.

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| Session 1: Introduction to Cloud Computing  9.00 am - 9.30 am | * Overview * Advantages of Cloud Computing * What is Google Cloud * What is Amazon Web Services * Session 1 - Introduction to Cloud Computing.pptx * [Recorded Zoom Presentation](https://umsystem.zoom.us/rec/share/OfaXUBMI4SdCcIYzubSWeURKlF3rIYDfVHvTt6oR_rXDbftpwjjrROD_lodyL6qC.7aPVgusGcJJt2mjw?startTime=1600394971000) |
| Break 9.30 am - 9.45 am |  |
| Session 2: A Recap/Introduction to R  9.45 am - 11.00 am | * What is R * Reading Data, Data Summaries, Descriptive Statistics * Basic Statistical Analysis using R * Data visualization in R * Study materials: Session 2 - A Recap-Introduction to R.pptx * [Recorded Zoom Presentation](https://umsystem.zoom.us/rec/share/M8vXUsH0hLp-Tzr-K28fz-mDvaaZ81gXg3MFDG6jxFmLGauESEe6NoPEblUw3Muk.-oOsAYdqkuyORWrk?startTime=1600442688000) |
| Break 11.00 am - 11.15 am |  |
| Session 3: Running R in Google Cloud Platform  11.15 am - 12.15 pm | * How to set up virtual machines in Google Cloud * Submitting R codes and running statistical analysis in Google Cloud * Parallel Computing in Google Cloud * Study materials: Session 3 - Running R in Google Compute Platform.pptx * [Recorded Zoom Presentation](https://umsystem.zoom.us/rec/share/AFTQvJ14_KXWdRs2b2G9TtCBP8YT4HApVMxWIu4AWatyRSkCO157Zvyet7ntoi6W.5i08-A__Fy8AcGcz?startTime=1600454879000) |
| Lunch 12.15 pm - 1.15 pm |  |
| Session 3: Running R in Google Cloud Platform Continued  1.15 pm - 2.00 pm | * Parallel Computing in Google Cloud * Study materials: Session 3 - Running R in Google Compute Platform.pptx * [Recorded Zoom Presentation](https://umsystem.zoom.us/rec/share/yO15TQQnPgIuRlcxfuO_MMaXd4A-qH-xQzaJy_vimoxoRHaUbjtRGaAQj4ZK55Fm.MgPpsP97dcHClOyg?startTime=1600459516000) |
| Session 4: Running R in Amazon Web Services Platform  2.00 pm - 3.00 pm | * How to set up virtual machines in Amazon Web Services * Submitting R codes and running statistical analysis in AWS * Special features and parallel computing in AWS * Session 4 - Running R in Amazon Web Services Platform.pptx * [Recorded Zoom Presentation](https://umsystem.zoom.us/rec/share/brrwJRTA0W-2uUMd05Eg2qI2uMiokuNSgOyXjYysn9SBjui0qhEgBT68yJybzeoK.p7IV32XZCpq6aiB9?startTime=1600465911000) |
| Break 3.00 pm - 3.15 pm |  |
| Session 5: Practicum  3.15 pm - 4.00 pm | * You will run a practical exercise working with your own code and data files in GCP and AWS, or you may use the toy code provided. * Session Practicum.pptx * All relevant files for this session is in the Practicum folder. |