

## **Training Schedule**

Topic : R programing

Date : August 09, 2022 to January 24, 2023

Venue : ACLEDA Headquarters, Meeting Room 15AB, 15 Floors.

Time	Duration	Contents	Resource person			
Tuesday 09 A	Tuesday 09 August, 2022					
17:00-19:00	2h	<ul><li>Introduction to R programing</li><li>Arithmetic Operators</li></ul>				
Tuesday 16	Tuesday 16 August, 2022					
17:00-19:00	2h	<ul><li>Introduction to R Programing (Cont.)</li><li>Logical Operations</li><li>Using Functions</li></ul>				
Tuesday 23 A	August, 2022					
17:00-19:00	2h	<ul><li>II. Data structure and Variable</li><li>- Creating Variables</li><li>- Numeric, Character and Logical Data</li></ul>	<b>Mr. Chan Sophal</b> AIB trainer			
Tuesday 30 A	Alb dalliel					
17:00-19:00	2h	<ul><li>II. Data Structure and Variable (Cont.)</li><li>Vectors</li><li>Data Frames</li><li>Factors</li></ul>				
Tuesday 06 S	September, 2					
17:00-19:00	2h	<ul> <li>II. Data Structure and Variable (Cont.)</li> <li>- Sorting Numeric, Character, and Factor Vectors</li> <li>- Special Values</li> </ul>				

Time	Duration	Contents	Resource person		
Tuesday 13	Tuesday 13 September, 2022				
17:00-19:00	2h	<ul><li>III. R package and scripts</li><li>Setting up your working directory</li><li>Downloading and importing data</li></ul>			
Tuesday 20 S					
17:00-19:00	2h	<ul> <li>III. R package and scripts (Cont.)</li> <li>Working with missing data</li> <li>Extracting a subset of a data frame</li> <li>Writing R scripts</li> </ul>			
Tuesday 04 (	October, 202	2			
17:00-19:00	2h	<ul><li>III. R package and scripts (Cont.)</li><li>- Adding comments and documentation</li><li>- Creating reports</li></ul>			
Tuesday 11	October, 202	2			
17:00-19:00	2h	<ul> <li>IV. Descriptive statistic in R</li> <li>Measures of central tendency</li> <li>Measures of variability</li> <li>Skewness and kurtosis</li> </ul>	<b>Mr. Chan Sophal</b> AIB trainer		
Tuesday 18 (	October, 202	2			
17:00-19:00	2h	<ul> <li>IV. Descriptive statistic in R (Cont.)</li> <li>Summary functions, describe functions, and descriptive statistics by group</li> <li>Correlations</li> </ul>			
Tuesday 25 (	October, 202	2			
17:00-19:00	2h	<ul><li>V. Statistical graph</li><li>- Scatter Plots</li><li>- Box Plots</li></ul>			
Tuesday 01 I					
17:00-19:00	2h	<ul> <li>V. Statistical graph (Cont.)</li> <li>- Scatter Plots and Box and-Whisker Plots Together</li> <li>- Histograms and etc</li> </ul>			

Time	Duration	Contents	Resource person			
Tuesday 15 N	Tuesday 15 November, 2022					
17:00-19:00	2h	<ul> <li>VI. Messy data implementation</li> <li>- Messy Data</li> <li>- Renaming Columns (Variable Names)</li> <li>- Attaching / Detaching</li> </ul>				
Tuesday 22 N						
17:00-19:00	2h	<ul> <li>VI. Messy data implementation (Cont.)</li> <li>Tabulating Data: Constructing Simple         Frequency Tables</li> <li>Ordering Factor Variables</li> </ul>				
Tuesday 29 N						
17:00-19:00	2h	VII. Control structure - while loops - for loops				
Tuesday 06 [	<b>Mr. Chan Sophal</b> AIB trainer					
17:00-19:00	2h	VII. Control structure (Cont.) - If / else - Boolean logical operators				
Tuesday 13 [	December, 2	022				
17:00-19:00	2h	<ul> <li>VIII. Data exploration and visualization</li> <li>Using the gg plot 2 package to visualize data</li> <li>Applying themes from gg themes to refine and customize charts and graphs</li> </ul>				
Tuesday 20 December, 2022						
17:00-19:00	2h	VIII. Data exploration and visualization (Cont.) - Building data graphics for dynamic reporting				

Time	Duration	Contents	Resource person			
Tuesday 27 [	Tuesday 27 December, 2022					
17:00-19:00	2h	<ul> <li>IX. Data querying</li> <li>Writing SQL statements in R</li> <li>Using the Select, From, Where, Is, Like,</li> <li>Order By, Limit, Max, Min SQL functions</li> </ul>				
Tuesday 03 J	Tuesday 03 January, 2023					
17:00-19:00	2h	<ul> <li>X. R function reporting and interactive reporting with R markdown</li> <li>- Creating functions</li> <li>- Calling functions</li> </ul>				
Tuesday 10 J	Tuesday 10 January, 2023					
17:00-19:00	2h	<ul> <li>X. R function reporting and interactive reporting with R markdown (Cont.)</li> <li>R Mark down basics</li> <li>Text formatting</li> </ul>	Mr. Chan Sophal			
Tuesday 17 J	AIB trainer					
17:00-19:00	2h	<ul> <li>X. R function reporting and interactive reporting with R markdown (Cont.)</li> <li>- Code chunks</li> <li>- YAML header</li> <li>- Preview of notebooks, presentations ,websites, and dashboards</li> </ul>				
Tuesday 24 J	anuary, 202					
17:00-18:00	1h	<ul> <li>XI. R function reporting and interactive reporting with R markdown (Cont.)</li> <li>Code chunks</li> <li>YAML header</li> <li>Preview of notebooks, presentations ,websites, and dashboards</li> </ul>				

Phnom Penh, August 01, 2022 Prepared:

Ms. Hoeung Bundy

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