Introduction to R's Shiny Applications Through Practical Examples

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This tutorial provides an exploration into the integration of Shiny applications within the realm of sensory and consumer research using the R programming language.

Shiny is an interactive web application framework for R that offers a dynamic and user-friendly environment for visualizing and analyzing data. The tutorial aims to empower researchers to leverage Shiny's capabilities for creating engaging and interactive tools to their needs (e.g. data processing, data analysis, data visualization, reporting, etc.).

The tutorial will cover the key aspects of Shiny applications' development (data processing and visualization, automated reporting) through real-life examples. Participants will gain hands-on experience, enabling them to create custom applications tailored to their needs.

Topics covered will include:

- **Introduction to Shiny**: An overview of Shiny's architecture and capabilities, with a focus on its relevance to sensory and consumer research.
- **Building Interactive Dashboards**: Step-by-step guidance on designing and developing interactive dashboards to visualize sensory data, consumer preferences, and trends.
- **Data Integration and Processing**: Techniques for integrating diverse datasets into Shiny apps, handling data (from processing to analysis/visualization and reporting).
- **User Experience**: Best practices for creating intuitive and user-friendly Shiny applications.

By the end of the tutorial, participants will possess the skills to harness the potential of Shiny applications for advancing their sensory and consumer research endeavors, ultimately facilitating more impactful data-driven decision-making in this dynamic field.

Duration	3 hours
Audience	Sensory and consumer scientists who are interested in building their own analysis dashboard using a freely available/open-source software (R/RStudio).
Background	Basic knowledge in R and the tidyverse framework, as well as RStudio is preferred. Basic understanding of statistics is helpful but not required. We will email registered participants before the workshop with some basic setup requirements (R/RStudio software installation).
Laptop	This is a coding workshop, and so we ask all participants to bring a laptop with access to R, RStudio, and some of the relevant packages. We will ask for minimal pre-work (installation of R/RStudio).