Step 1: Creating the Shiny Application

Objective: Create a Shiny app that allows users to input a number and displays a plot based on the input.

ui.R (User Interface)

```
# ui.R

shinyUI(fluidPage(

  # Application title
  titlePanel("Simple Shiny App"),

  # Sidebar layout with input widget
  sidebarLayout(
    sidebarPanel(
      textInput("number", "Enter a number:", value = "5")
    ),
    mainPanel(
      plotOutput("plot")
    )
  )
))
```

server.R (Server-Side Logic)

```
# server.R

shinyServer(function(input, output) {

  # Reactive expression for generating a sequence based on user input
  data <- reactive({
    seq_len(as.numeric(input$number))
```

```
  })

  # Render a plot based on the generated sequence
  output$plot <- renderPlot({
    plot(data(), type = "l", col = "blue", main = "Sequence Plot", xlab = "Index", ylab = "Value")
  })

})
```

Step 2: Creating the Reproducible Pitch Presentation

Objective: Prepare a pitch presentation using RStudio Presenter with embedded R code.

presentation.Rmd (R Markdown File for Presentation)

markdown

````
---
title: "Simple Shiny App Presentation"
author: "Your Name"
date: `r Sys.Date()`
output:
  ioslides_presentation:
    widescreen: yes
---

## Introduction

- This presentation introduces a simple Shiny app.
- The app allows users to input a number and displays a corresponding sequence plot.

## Shiny App Overview

```{r}
shinyApp(ui = source("ui.R")$value, server = source("server.R")$value)
````
````

Demo

{r}

Copy code

Render a demo of the Shiny app

shinyApp(ui = source("ui.R")$value, server = source("server.R")$value)

Conclusion

This Shiny app demonstrates a basic interactive data visualization concept.

markdown

Evaluation and Submission

1. **Testing**:
   - Run the Shiny app locally to ensure it functions as expected.
   - Review the presentation slides to verify content and R code execution.

2. **Deployment and Sharing**:
   - Deploy the Shiny app on RStudio's shinyapps.io or another Shiny server.
   - Publish the presentation to Rpubs or GitHub Pages using RStudio Presenter.

3. **Submission**:
   - Share the link to your deployed Shiny app.
   - Provide the link to your hosted presentation (Rpubs or GitHub Pages) in the submission box.

This example illustrates a basic Shiny app and presentation. Customize and expand up