

App Inventor Exam: TinyDB, Canvas, Events, Procedures, and Virtual Screens

1. In your drawing application, users want to erase everything they've drawn. What's the most efficient way to clear all content from the Canvas?
 - A. Use Canvas.Clear
 - B. Create a new Canvas component and replace the old one
 - C. Set the background color to white
 - D. Draw a white rectangle covering the entire Canvas
2. You're creating an app that should show an introductory tutorial only on the first launch. How would you implement this functionality?
 - A. Use a global variable to track if the tutorial has been shown
 - B. Ask the user each time if they want to see the tutorial
 - C. Check in Screen.Initialize if a "tutorialShown" tag exists in TinyDB, if not, show the tutorial and then store "true" with that tag
 - D. Always show the tutorial during OnStart
3. Your app needs to calculate a player's score based on several factors. Which type of procedure is most appropriate?
 - A. A procedure with multiple parameters but no result
 - B. A procedure without parameters or result
 - C. A procedure with result that returns the calculated score value
 - D. No procedure - just use the blocks directly in the Button.Click event
4. When a user draws on your app's Canvas, which event should you use to create lines that follow their finger movement?
 - A. Canvas.TouchDown
 - B. Canvas.Dragged
 - C. Canvas.Draw
 - D. Canvas.TouchMove
5. What would be the most appropriate way to store a user's preferred theme setting (dark/light) so it persists when they restart the app?
 - A. Use a global variable
 - B. Save it to a text file
 - C. Store it in a Label component that's not visible
 - D. Use TinyDB to save the theme preference

6. In an app with virtual screens, you have multiple `VerticalArrangements` that represent different sections. What happens to the data in a hidden arrangement when you make another one visible?
- A. The data is automatically saved to TinyDB
 - B. All data is lost when an arrangement becomes invisible
 - C. The data is preserved since the arrangement is just hidden, not destroyed
 - D. The data is temporarily stored in the device's clipboard
7. Which of these would NOT be appropriate to store in TinyDB?
- A. User high scores
 - B. Language preference
 - C. Large image files
 - D. Last played level number
8. You need to restart your game in multiple situations (level completion, player loss, reset button). What's the best approach?
- A. Copy the same reset blocks into each event handler
 - B. Define a procedure without result called "ResetGame" and call it from each event
 - C. Use global variables to track when to reset
 - D. Create a new screen for each scenario
9. Your educational app needs to draw X and Y axes for a coordinate system. What's the most efficient way to do this?
- A. Use many `Canvas.DrawPoint` calls
 - B. Use `Canvas.DrawCircle` with a very small radius
 - C. Use `Canvas.DrawLine` for each axis with appropriate coordinates
 - D. Use `Canvas.DrawRect` to create thin rectangles
10. A user deleted your app and reinstalled it, but their saved preferences were gone. Why?
- A. They didn't sync their data to the cloud
 - B. TinyDB data is tied to the app installation and is deleted when the app is uninstalled
 - C. The preferences expired after a certain time period
 - D. The user needs to restore their preferences manually
11. In your quiz app with multiple categories as virtual screens, users want to return directly to the main menu from any category. What's the best approach?
- A. Use a procedure that changes the visibility of all category arrangements to false and makes the main menu visible
 - B. Add a "Home" button that uses multiple `BackScreen` blocks
 - C. Restart the app
 - D. Use `BackScreen` repeatedly until reaching the main menu

12. Your app needs to convert temperatures between Celsius and Fahrenheit. What type of procedure would be most appropriate?
- A. A procedure without result that updates a Temperature label
 - B. A procedure with result that returns the converted temperature
 - C. No procedure - calculate the conversion directly in the Button.Click event
 - D. Two separate procedures, one for each conversion direction
13. When implementing drag-and-drop functionality for objects on a Canvas, which parameters from the Dragged event are essential to make objects follow the finger smoothly?
- A. prevX and prevY
 - B. startX and startY
 - C. currentX and currentY
 - D. draggedX and draggedY
14. To clear all saved user data in your app at once, which TinyDB method would you use?
- A. TinyDB.DeleteAll
 - B. TinyDB.Reset
 - C. TinyDB.Clear
 - D. TinyDB.RemoveAll
15. In a drawing application, users want to change the pen color while drawing. Where would you place the color selection code?
- A. In the Screen.Initialize event
 - B. In a separate procedure that's called when a color button is clicked
 - C. Inside the Canvas.Dragged event
 - D. In the Clock.Timer event
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