1. Start
2. Declare variables

   int choice

   int numbers[10]

3. Display Main Menu

   1 – Selection Sort

   2 – Insertion Sort

   3 – Bubble Sort

   4 – Exit

4. Ask user to input a choice
5. If input is not 1, 2, 3, or 4

   Display “Invalid choice! Press Enter to try again.”

   Go back to Main Menu

6. If user chose 1

   Input 10 numbers

   (If input is invalid, ask again)

Perform Selection Sort:

- Set i = 0
- Repeat while i < 4
- Set minIndex = i
- Set j = i + 1
- Repeat while j < 5
- If numbers[j] < numbers[minIndex]

  set minIndex = j

- Increase j
- Swap numbers[i] and numbers[minIndex]
- Increase i

Display sorted numbers

Press Enter

Return to Main Menu

7. If user chose 2

   Input 10 numbers

   (If input is invalid, ask again)

Perform Insertion Sort:

- Set i = 1
- Repeat while i < 10
- Set key = numbers[i]
- Set j = i - 1
- While j >= 0 AND numbers[j] > key
- Move numbers[j] to position j + 1
- Decrease j
- Place key at numbers[j + 1]
- Increase i

Display sorted numbers

Press Enter

Return to Main Menu

8. If user chose 3

   Input 10 numbers

(If input is invalid, ask again)

Perform Bubble Sort:

- Set i = 0
- Repeat while i < 4
- Set j = 0
- Repeat while j < 4 - i
- If numbers[j] > numbers[j + 1]

Swap the two numbers

- Increase j
- Increase i

Display sorted numbers

Press Enter

Return to Main Menu

9. If user chose 4

   Display “Exiting program. Goodbye!”

10. End