

INFORMATICS INSTITUTE OF TECHNOLOGY

In collaboration with

UNIVERSITY OF WESTMINSTER

Programming Principles II

4COSC010C

CW1 - Pseudocode

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PSEUDOCODE for PP02 Assignment-1

GOLF CLUB

\*delete, restore options included in Pseudocode.

undo, redo options aren't included in Pseudocode,

but included in code\*

BEGIN

1.SET input=0, name="", arrLength=0

2.SET playerRecords = <name,result>, playerResults=[]

2.SET deletedRecords = <name,result>, playerResults=[]

3.DISPLAY "Welcome to Springfield Golf Club"

4.DISPLAY "Select Option:

1) Enter Scores

2) Find Golfer

3) Display Scoreboard

4) Exit Program"

5.PROMPT input

6.GET input

7.inputValidation

8.DO WHILE input!=4:

9. IF input == number

10. SET input == 0

11. DO WHILE input<=0:

12. PROMPT input

13. GET input

14. Sort playerResults in ascending order

15. playerNames=[]

16. SET i=0

17. DO WHILE i<arrLength:

18. p = playerResults[i]

19. SET t=0

20. DO WHILE t<arrLength;

21. (Map.Entry)

22. IF p==Value of entry

23. Key of entry in playerNames[i]

END IF

24. t=t+1

END DO

25. playerRecords<p,> in playerNames

26. i=i+1

END DO

27. IF input == 1:

28. enterScores

29. ELSE IF input == 2:

30. findGolfer

31. ELSE IF input == 3:

32. displayScores

33. ELSE IF input ==4:

34. DISPLAY "We hope you enjoyed your Golf session at Springfield Golf Club.

Looking forward to assist you in your next session.

Exiting Program..."

35. ELSE:

36. DISPLAY Invalid input!!! Reenter..."

END IF

END IF

END IF

END IF

END DO

37. ELSE:

38. DISPLAY "Only numeric characters are accepted. Please provide a valid input"

END IF

END DO

END

------------------------------------------methods----------------------------------------------

---~~~main menu methods~~~---

enterScores

1.DISPLAY "Enter Scores:

1) Enter Details

2) Edit Records

3) Delete Records

4) Restore Records

5) Exit Program"

2.PROMPT input

3.GET input

4.inputValidation

5.DO WHILE (input<1 OR input>5):

6. IF input == number

7. IF input == 1:

8. enterDetails

9. ELSE IF input == 2:

10. editData

11. ELSE IF input == 3:

12. deleteData

13. ELSE IF input ==4:

14. restoreData

15. ELSE:

16. DISPLAY Invalid input!!! Reenter..."

END IF

END IF

END IF

END IF

END IF

END DO

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findGolfer

1.PROMPT name

2.GET name

3.IF name in playerRecords:

4. DISPLAY "Score: " + playerRecords<name, >

5.ELSE:

6. DISPLAY "There is no recorded entry related to this name."

END IF

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displayScores

1.SET index[i] = 0

2.DO WHILE i<arrLength:

3. DISPLAY playerNames[i]" "+ playerResults[i]

4. i = i + 1

END DO

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inputValidation

1.DO WHILE scanInput != INTEGER:

2. DISPLAY "Only integer numbers are allowed! Please try again."

3. CLEAR scanInput

END DO

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changeScore

17.SET result=0

18.SET position = 0

19.SET n=0

20.DO WHILE n<arrLength:

21. IF playerNames[n] = name:

22. position = n

END IF

23. n = n+1

.END DO

24.playerResults[position] = 0

25.DO WHILE result<18 OR result>108:

26. PROMPT result

27. inputValidation

28. GET result

END DO

29.result, name in playerRecords<name,result>

30.result in playerResults[i]

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---~~~sub menu methods~~~---

enterDetails

1.SET numOfGolfers=0

2.DO WHILE numOfGolfers=0 OR numOfGolfers != number:

3. PROMPT numOfGolfers

4. inputValidation

5. GET numOfGolfers

END DO

7.DO WHILE numOfGolfers>0:

8. SET result = 0

9. SET alter == ''

10. PROMPT for name

11. GET name

12. IF name in playerRecords<,name>:

13. DO WHILE name in playerRecords<,name>:

14. PROMPT alter: "This Golfer has a previous entry! Do you wish to over-write this?"

15. GET alter

16. IF alter == 'yes' OR alter == 'y':

changeScore

31. ELSE IF alter =='no' OR alter =='n':

32. DISPLAY "The new record for Golfer, "+name+" wasn't changed."

33. ELSE:

34. DISPLAY "Invalid input."

END IF

END IF

END DO

35. ELSE:

36. SET result=0

37. DO WHILE result<18 OR result>108:

38. PROMPT result

39. inputValidation

40. GET result

END DO

41. arrLength = arrLength + 1

42. name, result in playerRecords<name,result>

43. result in playerResults[i]

END IF

44. numOfGolfers -= 1

END DO

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editData

1.displayScores

2.DISPLAY "Enter a name that you want to edit the score of: "

3.PROMPT name

4.GET name

.IF name in playerRecords:

. changeScore

.ELSE:

. DISPLAY "There is no record related to this name."

END IF

---------

deleteData

1.displayScores

2.DISPLAY "Enter a name that you want to delete the record of: "

3.IF name in playerRecords:

4. name, playerRecords<name,result> in deletedRecords<name, result>

5. < , > in playerRecords<name, >

6. DO WHILE n<arrLength:

7. IF playerNames[n] == name

8. position = n

9. n = n+1

END IF

END DO

10. playerResults[position] = 0

11. DISPLAY "The record for, " + name + " was deleted"

12.ELSE:

13. DISPLAY "There is no record related to this name."

END IF

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restoreData

1.DISPLAY "Enter a name that you want to restore the record of: "

2.PROMPT name

3.GET name

4.IF <name , > in deletedRecords<, >

5. playerRecords<name, > remove from playerResults[]

6. deletedRecords<name, > in playerResults[]

7. <name, deletedRecords<name, >> in playerRecords<, >

8. <,> in deletedRecords <name,>

9. DISPLAY "The record for player, " + name + " was restored."

10.ELSE

11. DISPLAY "There is no deleted record related to this name."