The Springhill Amateur Golf Club has a tournament every weekend. The club president has asked you to write a Menu-Driven program which has the following functionality:

1. Allows for each player's name and golf score to be entered and saved in a text file named golf.txt.

2. Reads each player's name and golf score from the text file golf.txt and provides an average score.

3. The program will use one variable for the player's name and one variable for the score.

**ALGORITHM**

1. Welcome page for Golf Score Program
2. Present Menu options – repeat until option ‘C’ is selected
   1. Option 1- Get name and score input
   2. Option 2 –Read file and display average
   3. Option 3 – Exit program
3. If Option 1 is entered:
   1. open golf.txt file
   2. Repeat for each score needed to enter
      1. Ask user’s name
         1. validate name
         2. return
      2. Ask for score input
         1. Validate for is number
         2. return
   3. append golf.txt file
   4. close file
   5. Return to step #2
4. If Option 2 is entered:
   1. Read golf.txt file
   2. Accumulate scores and number of scores read from golf.txt file
   3. Display user name, scores
   4. Close file
   5. Display overall average
   6. return
5. If Option 3is entered:
   1. Display farewell message

**VARIABLES/CONSTANTS**

VariableName Value (data type) functionName

beginSequence =’y’ str welcome()

userName = ‘’ str getName()

userScore =0 int getScore

menuOption =’’ int main()

another =’y’ str main()

total =0 int main()

count =0 int main()

average =0 int main()

**FORMULAS**

* total += userScore
  + Accumulate the total score
* count += 1
  + Accumulate the number of scores
* average = total / count
  + Calculate the averages of the user scores

**HIERARCHY**

**FLOWCHARTS – One flowchart per function - Embed from flowchart tool**

**main() – see attached Visio doc to get full view**



**welcome()**



**getName()**



**getScore()**



**checkFile()**



**TEST DATA – 5 complete data sets**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Input (**userName**)** | **Input**  **(userScore)** | **Process**  **(**count**)**  **+=1** | **Process**  **(**total**)**  **+=userScore** | **Process**  **(**average**)**  **Total // count** | **Output**  **(username**  **userScore**  **average)** |
| Jeremy | 72 | 1 | 72 | 72 //1 =72 | Jeremy  72  The average for the club is: 72 |
| Jessie | 94 | 2 | 166 | 166 // 2 = 83 | Jeremy  72  Jessie  94  The average for the club is: 83 |
| Jessica | 63 | 3 | 229 | 229 // 3 = 76 | Jeremy  72  Jessie  94  Jessica  63  The average for the club is: 76 |
| Jordan | ~~132~~  112 | 4 | 341 | 341 // 4 =85 | Jeremy  72  Jessie  94  Jessica  63  Jordan  112  The average for the club is: 85 |
| ~~“ “~~  Jordie | 69 | 5 | 410 | 410 // 5 = 82 | Jeremy  72  Jessie  94  Jessica  63  Jordan  112  Jordie  69  The average for the club is: 82 |

**TEST DATA EXECUTION RESULTS**

#################################### TEST 1 ##################################

Hello Students!

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Thank you for taking the time to use this program.

The program was made by Jeremy Bargy.

Last update March 2020

Instructions

------------

The program being used is designed to help the Springhill Amateur Golf Club track their players scores and the overall skill of the players at their course.

With this information, Springhill can identify the actions needed to improve their golf course and see the skill level of their players.

Players with this information can identify the areas they need to improve at and what parts of their game they excel at.

Begin program?

Please enter Y for yes

y

Select A to input name and score.

Select B to see all the players scores and average score for the club.

Select C to end the program.

a

Please enter in your name:

Jeremy

Please enter in your score:

72

Is there another user?

Y = yes, anything else = no:

n

Select A to input name and score.

Select B to see all the players scores and average score for the the club.

Select C to end the program.

b

Jeremy

72

The average for the club is: 72

Select A to input name and score.

Select B to see all the players scores and average score for the the club.

Select C to end the program.

c

Thanks for using our program!

>>>

#################################### TEST 2 ##################################

Hello Students!

---------------

Thank you for taking the time to use this program.

The program was made by Jeremy Bargy.

Last update March 2020

Instructions

------------

The program being used is designed to help the Springhill Amateur Golf Club track their players scores and the overall skill of the players at their course.

With this information, Springhill can identify the actions needed to improve their golf course and see the skill level of their players.

Players with this information can identify the areas they need to improve at and what parts of their game they excel at.

Begin program?

Please enter Y for yes

y

Select A to input name and score.

Select B to see all the players scores and average score for the club.

Select C to end the program.

a

Please enter in your name:

Jessie

Please enter in your score:

94

Is there another user?

Y = yes, anything else = no:

n

Select A to input name and score.

Select B to see all the players scores and average score for the club.

Select C to end the program.

b

Jeremy

72

Jessie

94

The average for the club is: 83

Select A to input name and score.

Select B to see all the players scores and average score for the club.

Select C to end the program.

c

Thanks for using our program!

>>>

#################################### TEST 3 ##################################

Hello Students!

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Thank you for taking the time to use this program.

The program was made by Jeremy Bargy.

Last update March 2020

Instructions

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The program being used is designed to help the Springhill Amateur Golf Club track their players scores and the overall skill of the players at their course.

With this information, Springhill can identify the actions needed to improve their golf course and see the skill level of their players.

Players with this information can identify the areas they need to improve at and what parts of their game they excel at.

Begin program?

Please enter Y for yes

y

Select A to input name and score.

Select B to see all the players scores and average score for the club.

Select C to end the program.

a

Please enter in your name:

Jessica

Please enter in your score:

63

Is there another user?

Y = yes, anything else = no:

n

Select A to input name and score.

Select B to see all the players scores and average score for the club.

Select C to end the program.

b

Jeremy

72

Jessie

94

Jessica

63

The average for the club is: 76

Select A to input name and score.

Select B to see all the players scores and average score for the club.

Select C to end the program.

c

Thanks for using our program!

>>>

#################################### TEST 4 ##################################

Hello Students!

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Thank you for taking the time to use this program.

The program was made by Jeremy Bargy.

Last update March 2020

Instructions

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The program being used is designed to help the Springhill Amateur Golf Club track their players scores and the overall skill of the players at their course.

With this information, Springhill can identify the actions needed to improve their golf course and see the skill level of their players.

Players with this information can identify the areas they need to improve at and what parts of their game they excel at.

Begin program?

Please enter Y for yes

y

Select A to input name and score.

Select B to see all the players scores and average score for the club.

Select C to end the program.

a

Please enter in your name:

Jordan

Please enter in your score:

132

Error: incorrect input:

Please enter the test score you have earned. Please use a numeric value and does not exceed 130 and not a value lower than 60:

112

Is there another user?

Y = yes, anything else = no:

n

Select A to input name and score.

Select B to see all the players scores and average score for the club.

Select C to end the program.

b

Jeremy

72

Jessie

94

Jessica

63

Jordan

112

The average for the club is: 85

Select A to input name and score.

Select B to see all the players scores and average score for the club.

Select C to end the program.

c

Thanks for using our program!

>>>

#################################### TEST 5 ##################################

Hello Students!

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Thank you for taking the time to use this program.

The program was made by Jeremy Bargy.

Last update March 2020

Instructions

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The program being used is designed to help the Springhill Amateur Golf Club track their players scores and the overall skill of the players at their course.

With this information, Springhill can identify the actions needed to improve their golf course and see the skill level of their players.

Players with this information can identify the areas they need to improve at and what parts of their game they excel at.

Begin program?

Please enter Y for yes

y

Select A to input name and score.

Select B to see all the players scores and average score for the club.

Select C to end the program.

a

Please enter in your name:

Error: incorrect input:

Please your first name:

Jordie

Please enter in your score:

69

Is there another user?

Y = yes, anything else = no:

n

Select A to input name and score.

Select B to see all the players scores and average score for the club.

Select C to end the program.

b

Jeremy

72

Jessie

94

Jessica

63

Jordan

112

Jordie

69

The average for the club is: 82

Select A to input name and score.

Select B to see all the players scores and average score for the club.

Select C to end the program.

c

Thanks for using our program!

>>>