R version 3.3.2 (2016-10-31) -- "Sincere Pumpkin Patch"

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Platform: x86\_64-w64-mingw32/x64 (64-bit)

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[Workspace loaded from ~/.RData]

>

> # that can add, subtract, multiply

> # and divide using functions

>

> rm(list=ls())

>

> add <- function(x, y) {

+ return(x + y)

+ }

>

> print(add(3,4))

[1] 7

>

> subtract <- function(x, y) {

+ return(x - y)

+ }

>

> print(subtract(3,4))

[1] -1

>

> multiply <- function(x, y) {

+ return(x \* y)

+ }

>

> print(multiply(3,4))

[1] 12

>

> divide <- function(x,y) {

+ if(y == 0){

+ return ("error")

+ } else {

+ return(x/y)

+ }

+ }

>

> print(divide(3,4))

[1] 0.75

>

> squareroot <-function(x) {

+ return (sqrt(x))

+ }

>

> print (squareroot(100))

[1] 10

>

>

>

> square <-function(x) {

+ return (x\*x)

+ }

>

> print (square(100))

[1] 10000

>

> getfactorial <- function(num) {

+ if(num < 0) {

+ print("Sorry, factorial does not exist for negative numbers")

+ } else if(num == 0) {

+ print("The factorial of 0 is 1")

+ } else {

+ factorial = 1

+ for(i in 1:num) {

+ factorial = factorial \* i

+ }

+ print(paste("The factorial of", num ,"is",factorial))

+ }

+ }

>

> print (getfactorial(4))

[1] "The factorial of 4 is 24"

[1] "The factorial of 4 is 24"

>

> cosine <- function(x) {

+ return(cos(x\*pi/180))

+ }

>

> print (cosine(120))

[1] -0.5

>

>

> sine <- function(x) {

+ return(sin(x\*pi/180))

+ }

>

> print (sine(120))

[1] 0.8660254

>

>

>

> tangent <- function(x) {

+ if(x %% 180 ==0){

+ return (0)

+ } else if(x%% 90 ==0){

+ return ("error")

+ } else {

+ return (tan(x\*pi/180))

+ }

+ }

>

> print (tangent(90))

[1] "error"

>

> #getnumberinput <- function()

> #{

> # numinputs = as.numeric(readline("Enter number of inputs [1 or 2]: "))

> # if (numinputs == 1) {print ("one")} else if (numinputs == 2) {print ("two")}, else {print("invalid")}

> #}

> #########

> getnumberinputs <- function()

+ {

+ numinputs = as.numeric(readline("Enter number of inputs [1 or 2]: "))

+ if (numinputs == 1) {

+ print("Select operation.")

+ print("1.Add")

+ print("2.Subtract")

+ print("3.Multiply")

+ print("4.Divide")

+ choice = as.integer(readline(prompt="Enter choice[1/2/3/4]: "))

+

+ num1 = as.integer(readline(prompt="Enter first number: "))

+ num2 = as.integer(readline(prompt="Enter second number: "))

+

+ operator <- switch(choice,"+","-","\*","/")

+ result <- switch(choice, add(num1, num2), subtract(num1, num2), multiply(num1, num2), divide(num1, num2))

+

+ print(paste(num1, operator, num2, "=", result))

+ } else if (numinputs == 2) {

+ print("Select operation.")

+ print("1.Sine")

+ print("2.Cosine")

+ print("3.Tan")

+ print("4.SquareRoot")

+ print("5.Square")

+ print("6.Factorial")

+ choice = as.integer(readline(prompt="Enter choice[1/2/3/4/5/6]: "))

+

+ uinput = as.integer(readline(prompt="Enter input: "))

+ operator <- switch(choice,"Sine","Cosine","Tan","SquareRoot","Square","Factorial")

+ result <- switch(choice, sine(uinput), cosine(uinput), tangent(uinput), squareroot(uinput), square(uinput), getfactorial(uinput))

+ print(paste(operator, uinput, "=", result))

+ } else {print("invalid")}

+ }

>

> #Take input from the user

> print("Select Number of inputs:")

[1] "Select Number of inputs:"

> print("1. For Add, Subtract, Multiply or Divide")

[1] "1. For Add, Subtract, Multiply or Divide"

> print("2. For SQRT and square")

[1] "2. For SQRT and square"

> inptnumber <-getnumberinputs()

Enter number of inputs [1 or 2]: #~print (inptnumber)

Error in if (numinputs == 1) { : missing value where TRUE/FALSE needed

In addition: Warning message:

In getnumberinputs() : NAs introduced by coercion

>

>

> if(inptnumber==1){

+ print("Select operation.")

+ print("1.Add")

+ print("2.Subtract")

+ print("3.Multiply")

+ print("4.Divide")

+ choice = as.integer(readline(prompt="Enter choice[1/2/3/4]: "))

+

+ num1 = as.integer(readline(prompt="Enter first number: "))

+ num2 = as.integer(readline(prompt="Enter second number: "))

+

+ operator <- switch(choice,"+","-","\*","/")

+ result <- switch(choice, add(num1, num2), subtract(num1, num2), multiply(num1, num2), divide(num1, num2))

+

+ print(paste(num1, operator, num2, "=", result))

+

+ } else if(inputnumber == 2){

+ print ("B")

+ } else {

+ print ("Invalid Input")

+ }

Error: object 'inptnumber' not found

>

>

>

>

>

>

>

>

>

>

> if(choice==1){

+ print ("A")

+ } else if(choice == 2){

+ print ("B")

+ } else {

+ print ("C")

+ }

Error: object 'choice' not found

>

>

> # take input from the user

> print("Select operation.")

[1] "Select operation."

> print("1.Sine")

[1] "1.Sine"

> print("2.Cosine")

[1] "2.Cosine"

> print("3.Tan")

[1] "3.Tan"

> print("4.SquareRoot")

[1] "4.SquareRoot"

> print("5.Square")

[1] "5.Square"

> print("6.Factorial")

[1] "6.Factorial"

> choice = as.integer(readline(prompt="Enter choice[1/2/3/4/5/6]: "))

Enter choice[1/2/3/4/5/6]:

> uinput = as.integer(readline(prompt="Enter input: "))

Enter input: operator <- switch(choice,"Sine","Cosine","Tan","SquareRoot","Square","Factorial")

Warning message:

NAs introduced by coercion

> result <- switch(choice, sine(uinput), cosine(uinput), tangent(uinput), squareroot(uinput), square(uinput), getfactorial(uinput))

> print(paste(operator, uinput, "=", result))

Error in paste(operator, uinput, "=", result) :

object 'operator' not found

> # Program make a simple calculator

> # that can add, subtract, multiply

> # and divide using functions

>

> rm(list=ls())

>

> add <- function(x, y) {

+ return(x + y)

+ }

>

> print(add(3,4))

[1] 7

>

> subtract <- function(x, y) {

+ return(x - y)

+ }

>

> print(subtract(3,4))

[1] -1

>

> multiply <- function(x, y) {

+ return(x \* y)

+ }

>

> print(multiply(3,4))

[1] 12

>

> divide <- function(x,y) {

+ if(y == 0){

+ return ("error")

+ } else {

+ return(x/y)

+ }

+ }

>

> print(divide(3,4))

[1] 0.75

>

> squareroot <-function(x) {

+ return (sqrt(x))

+ }

>

> print (squareroot(100))

[1] 10

>

>

>

> square <-function(x) {

+ return (x\*x)

+ }

>

> print (square(100))

[1] 10000

>

> getfactorial <- function(num) {

+ if(num < 0) {

+ print("Sorry, factorial does not exist for negative numbers")

+ } else if(num == 0) {

+ print("The factorial of 0 is 1")

+ } else {

+ factorial = 1

+ for(i in 1:num) {

+ factorial = factorial \* i

+ }

+ print(paste("The factorial of", num ,"is",factorial))

+ }

+ }

>

> print (getfactorial(4))

[1] "The factorial of 4 is 24"

[1] "The factorial of 4 is 24"

>

> cosine <- function(x) {

+ return(cos(x\*pi/180))

+ }

>

> print (cosine(120))

[1] -0.5

>

>

> sine <- function(x) {

+ return(sin(x\*pi/180))

+ }

>

> print (sine(120))

[1] 0.8660254

>

>

>

> tangent <- function(x) {

+ if(x %% 180 ==0){

+ return (0)

+ } else if(x%% 90 ==0){

+ return ("error")

+ } else {

+ return (tan(x\*pi/180))

+ }

+ }

>

> print (tangent(90))

[1] "error"

>

> #getnumberinput <- function()

> #{

> # numinputs = as.numeric(readline("Enter number of inputs [1 or 2]: "))

> # if (numinputs == 1) {print ("one")} else if (numinputs == 2) {print ("two")}, else {print("invalid")}

> #}

> #########

> getnumberinputs <- function()

+ {

+ numinputs = as.numeric(readline("Enter number of inputs [1 or 2]: "))

+ if (numinputs == 1) {

+ print("Select operation.")

+ print("1.Add")

+ print("2.Subtract")

+ print("3.Multiply")

+ print("4.Divide")

+ choice = as.integer(readline(prompt="Enter choice[1/2/3/4]: "))

+

+ num1 = as.integer(readline(prompt="Enter first number: "))

+ num2 = as.integer(readline(prompt="Enter second number: "))

+

+ operator <- switch(choice,"+","-","\*","/")

+ result <- switch(choice, add(num1, num2), subtract(num1, num2), multiply(num1, num2), divide(num1, num2))

+

+ print(paste(num1, operator, num2, "=", result))

+ } else if (numinputs == 2) {

+ print("Select operation.")

+ print("1.Sine")

+ print("2.Cosine")

+ print("3.Tan")

+ print("4.SquareRoot")

+ print("5.Square")

+ print("6.Factorial")

+ choice = as.integer(readline(prompt="Enter choice[1/2/3/4/5/6]: "))

+

+ uinput = as.integer(readline(prompt="Enter input: "))

+ operator <- switch(choice,"Sine","Cosine","Tan","SquareRoot","Square","Factorial")

+ result <- switch(choice, sine(uinput), cosine(uinput), tangent(uinput), squareroot(uinput), square(uinput), getfactorial(uinput))

+ print(paste(operator, uinput, "=", result))

+ } else {print("invalid")}

+ }

>

> #Take input from the user

> print("Select Number of inputs:")

[1] "Select Number of inputs:"

> print("1. For Add, Subtract, Multiply or Divide")

[1] "1. For Add, Subtract, Multiply or Divide"

> print("2. For SQRT and square")

[1] "2. For SQRT and square"

> inptnumber <-getnumberinputs()

Enter number of inputs [1 or 2]: #~print (inptnumber)

Error in if (numinputs == 1) { : missing value where TRUE/FALSE needed

In addition: Warning message:

In getnumberinputs() : NAs introduced by coercion

>

>

> if(inptnumber==1){

+ print("Select operation.")

+ print("1.Add")

+ print("2.Subtract")

+ print("3.Multiply")

+ print("4.Divide")

+ choice = as.integer(readline(prompt="Enter choice[1/2/3/4]: "))

+

+ num1 = as.integer(readline(prompt="Enter first number: "))

+ num2 = as.integer(readline(prompt="Enter second number: "))

+

+ operator <- switch(choice,"+","-","\*","/")

+ result <- switch(choice, add(num1, num2), subtract(num1, num2), multiply(num1, num2), divide(num1, num2))

+

+ print(paste(num1, operator, num2, "=", result))

+

+ } else if(inputnumber == 2){

+ print ("B")

+ } else {

+ print ("Invalid Input")

+ }

Error: object 'inptnumber' not found

>

>

>

>

>

>

>

>

>

>

> if(choice==1){

+ print ("A")

+ } else if(choice == 2){

+ print ("B")

+ } else {

+ print ("C")

+ }

Error: object 'choice' not found

>

>

> # take input from the user

> print("Select operation.")

[1] "Select operation."

> print("1.Sine")

[1] "1.Sine"

> print("2.Cosine")

[1] "2.Cosine"

> print("3.Tan")

[1] "3.Tan"

> print("4.SquareRoot")

[1] "4.SquareRoot"

> print("5.Square")

[1] "5.Square"

> print("6.Factorial")

[1] "6.Factorial"

> choice = as.integer(readline(prompt="Enter choice[1/2/3/4/5/6]: "))

Enter choice[1/2/3/4/5/6]:

> uinput = as.integer(readline(prompt="Enter input: "))

Enter input: operator <- switch(choice,"Sine","Cosine","Tan","SquareRoot","Square","Factorial")

Warning message:

NAs introduced by coercion

> result <- switch(choice, sine(uinput), cosine(uinput), tangent(uinput), squareroot(uinput), square(uinput), getfactorial(uinput))

> print(paste(operator, uinput, "=", result))

Error in paste(operator, uinput, "=", result) :

object 'operator' not found

> rm(list=ls())

> add <- function(x, y) {

+ return(x + y)

+ }

>

> print(add(3,4))

[1] 7

>

>

>

> rm(list=ls())

>

> add <- function(x, y) {

+ return(x + y)

+ }

>

> print(add(3,4))

[1] 7

>

> subtract <- function(x, y) {

+ return(x - y)

+ }

>

> print(subtract(3,4))

[1] -1

>

> multiply <- function(x, y) {

+ return(x \* y)

+ }

>

> print(multiply(3,4))

[1] 12

>

> divide <- function(x,y) {

+ if(y == 0){

+ return ("error")

+ } else {

+ return(x/y)

+ }

+ }

>

> print(divide(3,4))

[1] 0.75

>

> rm(list=ls())

> multiply <- function(x, y) {

> subtract <- function(x, y) {

+ return(x - y)

+ }

>

> print(subtract(3,4))

[1] -1

>

> subtract <- function(x, y) {

+ return(x - y)

+ }

>

> print(subtract(3,4))

[1] -1

>

[1] 12

> divide <- function(x,y) {

+ if(y == 0){

+ return ("error")

+ } else {

+ return(x/y)

+ }

+ }

>

> print(divide(3,4))

[1] 0.75

> rm(list=ls())

> #Write a scientfic calc in R

>

> rm(list=ls())

>

> add <- function(x, y) {

+ return(x + y)

+ }

>

> print(add(4,44))

[1] 48

>

+ }

>

> print(add(4,44))

[1] 48

> subtract <- function(x, y) {

> subtract <- function(x, y) {

+ return(x - y)

+ }

>

> print(subtract(4,44))

[1] -40

>

> multiply <- function(x, y) {

> divide <- function(x,y) {

>

> print(multiply(4,44))

[1] 176

> square <-function(x) {

> squareroot <-function(x) {

+ return (sqrt(x))

+ }

>

> print (squareroot(1000))

[1] 31.62278

> square <-function(x) {

> print (square(100))

[1] 10000

>

>

> print (square(100))

[1] 10000

> getfactorial <- function(num) {

> print (getfactorial(4))

+ if(num < 0) {

+ print("Error: factorial does not exist for neg numbers")

+ } else if(num == 0) {

+ print("The factorial of 0 is equal to 1")

+ } else {

+ factorial = 1

+ for(i in 1:num) {

+ factorial = factorial \* i

+ }

+ print(paste("The factorial of", num ,"is equal to",factorial))

+ }

+ }

> print (getfactorial(4))

[1] "The factorial of 4 is equal to 24"

[1] "The factorial of 4 is equal to 24"

>

> cosine <- function(x) {

+ return(cos(x\*pi/180))

+ }

>

> print (cosine(120))

[1] -0.5

>

> cosine <- function(x) {

> sine <- function(x) {

> sine <- function(x) {

+ return(sin(x\*pi/180))

+ }

>

> print (sine(120))

[1] 0.8660254

>

> tangent <- function(x) {

> tangent <- function(x) {

+ return (tan(x\*pi/180))

+ }

+ }

>

> print (tangent(90))

[1] "error"

> print (tangent(180))

[1] 0

>

} else if(x%% 90 ==0){

+ return ("error")

+ } else {

+ return (tan(x\*pi/180))

+ }

+ }

>

> print (tangent(180))

[1] 0

> print("Select Number of inputs:")

> getnumberinputs <- function()

+ {

+ numinputs = as.numeric(readline("Enter num [1 or 2]: "))

+ if (numinputs == 1) {

+ print("Select a number to carry out operation.")

+ print("1.Add")

+ print("2.Subtract")

+ print("3.Multiply")

+ print("4.Divide")

+ choice = as.integer(readline(prompt="Enter choice[1/2/3/4]: "))

+

+ num1 = as.integer(readline(prompt="Enter first number: "))

+ num2 = as.integer(readline(prompt="Enter second number: "))

+

+ operator <- switch(choice,"+","-","\*","/")

+ result <- switch(choice, add(num1, num2), subtract(num1, num2), multiply(num1, num2), divide(num1, num2))

+

+ print(paste(num1, operator, num2, "=", result))

+ } else if (numinputs == 2) {

+ print("select a number to carry out operation.")

+ print("1.Sine")

+ print("2.Cosine")

+ print("3.Tan")

+ print("4.SquareRoot")

+ print("5.Square")

+ print("6.Factorial")

+ choice = as.integer(readline(prompt="Enter choice[1/2/3/4/5/6]: "))

+

+ uinput = as.integer(readline(prompt="Enter input: "))

+ operator <- switch(choice,"Sine","Cosine","Tan","SquareRoot","Square","Factorial")

+ result <- switch(choice, sine(uinput), cosine(uinput), tangent(uinput), squareroot(uinput), square(uinput), getfactorial(uinput))

+ print(paste(operator, uinput, "=", result))

+ } else {print("error invalid")}

+ }

>

> #Take input from the user

> print("Select Number of inputs:")

[1] "Select Number of inputs:"

> print("1. For Add, Subtract, Multiply or Divide")

[1] "1. For Add, Subtract, Multiply or Divide"

> print("2. For SQRT and square")

[1] "2. For SQRT and square"

> inptnumber <-getnumberinputs()

Enter num [1 or 2]: #~print (inptnumber)

Error in if (numinputs == 1) { : missing value where TRUE/FALSE needed

In addition: Warning message:

In getnumberinputs() : NAs introduced by coercion

>

>

> if(inptnumber==1){

+ print("select a number to carry out operation.")

+ print("1.Add")

+ print("2.Subtract")

+ print("3.Multiply")

+ print("4.Divide")

+ choice = as.integer(readline(prompt="Enter choice[1/2/3/4]: "))

+

+ num1 = as.integer(readline(prompt="Enter first number: "))

+ num2 = as.integer(readline(prompt="Enter second number: "))

+

+ operator <- switch(choice,"+","-","\*","/")

+ result <- switch(choice, add(num1, num2), subtract(num1, num2), multiply(num1, num2), divide(num1, num2))

+

+ print(paste(num1, operator, num2, "=", result))

+

+ } else if(inputnumber == 2){

+ print ("B")

+ } else {

+ print ("Invalid Input")

+ }

Error: object 'inptnumber' not found

>

> if(inptnumber==1){

> 12

+ print("4.Divide")

+ choice = as.integer(readline(prompt="Enter choice[1/2/3/4]: "))

+

+ num1 = as.integer(readline(prompt="Enter first number: "))

+ num2 = as.integer(readline(prompt="Enter second number: "))

+

+ operator <- switch(choice,"+","-","\*","/")

+ result <- switch(choice, add(num1, num2), subtract(num1, num2), multiply(num1, num2), divide(num1, num2))

+

+ print(paste(num1, operator, num2, "=", result))

+ 1

+ 2

+ 12

+

>

+

} else if(inputnumber == 2){

+ save.image("D:/FileHistory/SanDiskSecureAccess/programming for big data/CA5/enviroment\_functions.RData")

>

> } else if(inputnumber == 2){

Error: unexpected '}' in "}"

> print ("B")

[1] "B"

> } else {

Error: unexpected '}' in "}"

> print ("Invalid Input")

[1] "Invalid Input"

> }

Error: unexpected '}' in "}"