Documentation for matrix calculation program development

1. Created empty git repository with git init
2. Created git repository at github initialized with readme.md file
3. Cloned remote repository to local machine with *git clone* [*https://github.com/wojtekWOW/ruby.git*](https://github.com/wojtekWOW/ruby.git)comamand
4. Created empty program matrix.rb
5. Added matrix.rb to git repository with *git add matrix.rb*
6. Committed to *main* as initial commit with *git commit -m “Initial commit”*
7. Modified matrix.rb with basic program layout

puts "MatrixA: "

printMatrix(matrixA)

puts

puts "MatrixB: "

printMatrix(matrixB)

puts

puts "Matrix multiplication"

newMatrix = multiplyMatrix(matrixA, matrixB)

printMatrix(newMatrix)

1. Committed to *main* with *git commit -m “program layout”*
2. Created new branches dev and doc on remote repository
3. Created new branch dev with *git branch dev*  on local machine
4. Modified matrix.rb with matrixes definition

matrixA =[

[1, 2, 3],

[4, 5, 6]

]

matrixB =[

[7, 8],

[9,10],

[11,12]

]

1. Changed branch to dev with *git checkout dev* comand
2. Added modified matrix.rb to dev branch with *git add*
3. Committed with *git commit -m “define matrixA and matrixB”*
4. Committed to remote repository with  *git push origin dev*  command
5. Changed branch to doc with *git checkout doc* command
6. Added doc file to doc branch with *git add doc.docx* command
7. Committed doc file to doc branch with *git commit -m “added documentation”*
8. Edited matrix.rb with *printMatrix*(matrix) function

def printMatrix(matrix)

for array in matrix

array.select{|x| print x.to\_s.rjust(4." ")}

puts

end

end

1. Committed modified matrix.rb to dev branch on local machine with *git commit -m “define printMatrix(matrix) function”*
2. Updated program with new callers to include sum, multiplication and transposition of matrix

puts "MatrixA: "

printMatrix(matrixA)

puts

puts "MatrixB: "

printMatrix(matrixB)

puts

puts "Matrix sum"

matrixSum = sumMatrix(matrixA, matrixB)

printMatrix(matrixSum)

puts

puts "Matrix multiplication"

matrixMultiplied = multiplyMatrix(matrixA, matrixB)

printMatrix(matrixMultiplied)

puts

puts "Matrix transposition"

matrixTransposed = transposeMatrix(matrixA)

printMatrix(matrixTransposed)

1. Committed updated layout to dev branch *“update program layout with sum, transposition and multiplication callers”*
2. Pushed the commit to remote dev branch
3. Added function to sum two matrixes

def sumMatrix(matrix1, matrix2)

if matrix1.length==matrix2.length && matrix1[0].length==matrix2[0].length

matrixC=Array.new(matrix1.length){Array.new(matrix1[0].length){0}}

for i in 0..matrixC.length-1

for j in 0..matrixC[0].length-1

matrixC[i][j]= matrix1[i][j]+matrix2[i][j]

end

end

else

puts "You can sum only matrixes with the same size "

matrixC=[]

end

return matrixC

end

1. Committed sum function to dev branch *“add function to sum two matrixes”*
2. Pushed the commit to remote dev branch
3. Updated documentation
4. Added function to multiply 2 matrixes

def multiplyMatrix(matrix1,matrix2)

multipliedMatrix=Array.new(matrix1.length){Array.new(matrix2[0].length){0}}

for i in 0..multipliedMatrix.length-1

for j in 0..multipliedMatrix[0].length-1

for k in 0..matrix1[0].length-1

multipliedMatrix[i][j]+=matrix1[i][k]\*matrix2[k][j]

end

end

end

return multipliedMatrix

end

1. Committed multiply function to dev branch *“add multiplication function”*
2. Pushed the commit to remote dev branch