



Team name:

CODE 

Featuring :

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There were errors in 50% of the programs from class008_test (basically 1 or 2 errors in wrong program).

But there were rare cases like Nikola_Marinov_20_add57e.rb with 17 errors in 40 lines of code, too. We found 6 correctly working programs.

Common errors:

Error type “undefined method ” for nil:NilClass (NoMethodError) “: This was the most common error type in the wrong programs. It occurs when you try to use method to “nil” (for example “.length”, “+” and etc).

Code example:

```
1.Dir.glob("#{ARGV[0]}/**/*.rb") do |current_file|
2.name = current_file.split('/').last.split(/_/)
3.if name[1].length == 5
4.    if not students_names.include?("#{name[1]}", "#{name[0]}")
then
5.        students_names << (["#{name[1]}", "#{name[0]}"])
6.    end
7.end
```

If the directory “#{ARGV[0]}/**/” contains file.rb which not include ‘_’, on line 2 the array “name” will contain only nil values. Then on line 3 “name[1]” will be nil and when you try method “length” on “name[1]” it will throw error.

Solution:

```
1.Dir.glob("#{ARGV[0]}/**/*.rb") do |current_file|
2.name = current_file.split('/').last.split(/_/)
3.if name[1] != nil and name[1].length == 5
4.    if not students_names.include?("#{name[1]}", "#{name[0]}")
then
5.        students_names << (["#{name[1]}", "#{name[0]}"])
6.    end
7.end
```

On line 3 add a check if name[1] != nil.

Error type “undefined local variable or method `name' for main:Object (NameError)”:

This type of error mostly occurs because the scope of variables in ruby or wrong name of variable.

Code example:

```
1.Dir.glob("#{ARGV[0]}/*") do |path|
2.  name = path.split(/\/).last
3.end
4.
5.for i in 0..2
6.  result = name
7.  puts result
8.end
```

In this case the variable “name” is only visible in 1-3 line. So when you try to pass the value of “name” to “result” it throws error.

Solution:

```
0.name = ""
1.Dir.glob("#{ARGV[0]}/*") do |path|
2.  name = path.split(/\/).last
3.end
4.
5.for i in 0..2
6.  result = name
7.  puts result
8.end
```

Use global variables. At line 0 we define name with value “”. The variable name is visible in the whole problem and results will be equal to the last path Dir.glob() returns.

Common problems:

The most common problem:

“No such file or directory - result.csv. No result.csv file was found.”

Its solution its simple just check how you name your output csv.

There were some sorting issues, too:

The solution here is to learn how to use sort_by or other sorting method.

Some students had syntax problems.

These errors could be avoided at first place with N simple steps:

- 1.Read task's condition carefully.
- 2.Use only functions and methods which you know how they work.
- 3.Expect invalid files (not in the correct format) and try to ignore them.

APPENDIXES:

David_Georgiev_12_1eea4f.rb

program code:

```
require 'csv'
students_names = []
Dir.glob("#{ARGV[0]}/**/*.*rb") do |current_file|

  name = current_file.split('/').last.split(/_/)
  if name[1].length == 5
    if not students_names.include?("#{name[1]}", "#{name[0]}") then
      students_names << (["#{name[1]}", "#{name[0]}"])
    end
  end
end
end
CSV.open("result.csv", "w") do |csv|
  students_names.sort.each do |last, first|
    csv << ["#{first}", "#{last}"]
  end
end
end
```

Problems (Errors: 1):

Common error:

"David_Georgiev_12_1eea4f.rb:20:in `block in <main>': undefined method `length' for nil:NilClass (NoMethodError) from ../results/b/results/David_Georgiev_12_1eea4f.rb:17:in `glob' from ../results/b/results/David_Georgiev_12_1eea4f.rb:17:in `<main>' "

Solution: **if name[1] != nil && name[1].length == 5**

Program rank: 4

lliyan_Germanov_17_f8b0d9.rb

program code:

```
require 'csv'
results = Hash.new
results.compare_by_identity
def is_number(str)
  str[/[0-9]+/] == str
end
Dir.glob("#{ARGV[0]}/*.rb") do |path1|
  filename1 = path1.split(/\//).last
  if filename1.count("_") == 2
    firstname1 = filename1.split("_").first
    lastname1 = filename1.split("_")[1]
    digit1 = filename1.split("_")[2].split(".").first
    if is_number(digit1)
      flag = 0
      Dir.glob("#{ARGV[1]}/*.rb") do |path2|
        filename2 = path2.split(/\//).last
        if filename2.count("_") == 2
          digit2 = filename2.split("_")[2].split(".").first
          if is_number(digit2)
            name1 = firstname1 + lastname1
            name2 = filename2.split("_").first +
filename2.split("_")[1]
            if name1 == name2
              flag = 1
              break
            end
          end
        end
      end
    end
    if flag == 0
      results[lastname1] = firstname1
    end
  end
end
end
end

CSV.open("result.csv", "w") do |csv|
  results.sort_by{|key, val| key}.each do |el|
    csv << el
  end
end
```

Problems (Errors: 0):

Program is working correctly!

Wrong expected results:

Expected: LastName4,FirstName4 L5le3_3,F5le3

Output csv: L5le3,F5le3

Program rank: 5

Stefan_Iliev_28_d77aee.rb

program code:

```
require 'csv'
first_folder = ARGV.shift
second_folder = ARGV.shift || "err"
names_hash = Hash.new

Dir.glob(first_folder+"/*.*").each do |text_file|
  text_file = text_file.split("/").last
  if (text_file.split("_").length == 3) then
    first_name = text_file.split("_")[0]
    second_name = text_file.split("_")[1]
    diggit = text_file.split("_")[2].split(/\./).first
    if (diggit.to_i.to_s != diggit) then names_hash[text_file] = text_file.length
  end
  if (first_name =~ /\d/) then names_hash[text_file] = text_file.length end
  if (second_name =~ /\d/) then names_hash[text_file] = text_file.length
end
else
  names_hash[text_file] = text_file.length
end
end
if second_folder != "err"
  Dir.glob(second_folder+"/*.*").each do |text_file|
    text_file = text_file.split("/").last
    if (text_file.split("_").length == 3) then
      first_name = text_file.split("_")[0]
      second_name = text_file.split("_")[1]
      diggit = text_file.split("_")[2].split(/\./).first
      if (diggit.to_i.to_s != diggit) then names_hash[text_file] =
text_file.length end
      if (first_name =~ /\d/) then names_hash[text_file] = text_file.length
end
      if (second_name =~ /\d/) then names_hash[text_file] =
text_file.length end
    else
      names_hash[text_file] = text_file.length
    end
  end
end
names_hash = Hash[names_hash.sort_by{|k,v| k}]
names_hash = Hash[names_hash.sort_by{|k,v| v}]
puts names_hash

CSV.open("results.csv","w") do |csv|
  names_hash.each do |element|
    csv << element
  end
end
```

Problem (Errors: 0):

Common problem: "No such file or directory - result.csv. No result.csv file was found."

Solution: **"results.csv" => "result.csv"**

Program rank: 5

Stanislav_Iliev_26_627d43.rb

program code:

```
require 'csv'
name_array = Array.new()
name_array2 = Array.new()
support_array = Array.new()
support_array2 = Array.new()
i = 0
dir1 = ARGV[0]
dir2= ARGV[1]

Dir.glob("#{dir1}/*.txt") do |file|
  name_array[i] = file.split(/\/\//).last
  i += 1
end
count = i
i = 0
Dir.glob("#{dir2}/*.txt") do |file2|
  name_array2[i] = file2.split(/\/\//).last
  i += 1
end
i = 0
for check in i..count
  if name_array[check] != name_array2[check]
    support_array[i] = name_array[check]
    support_array2[i] = name_array2[check]
    i += 1
    puts support_array
    puts support_array2
    CSV.open("result.csv", "w") do |csv|
      support_array.each do |element|
        csv << [element]
      end
    end
    CSV.open("result.csv", "w") do |csv|
      support_array2.each do |element2|
        csv << [element2]
      end
    end
  end
end
end
```

Problems (Errors: 0):

Solution: There is no quick solution.

Program rank: 3

Nikolay_Mihailov_25_f70059.rb

program code:

```
require 'csv'
hash = Hash.new
count = 0
Dir.glob(ARGV[0] + "/*.rb") do |file|

  first = file.split(/\//).last
  puts first

  #for (i = 0;i < first.length;i+=1)
  size = first.length
  i = 0
  first.each do |element|

    c = first[i].chr
    if element == 0 || element == 1 || element == 2 || element == 3
|| element == 4 || element == 5 || element == 6 || element == 7 || element == 8
|| element == 9
      count +=1
    end
  end
  puts count
end

Dir.glob(ARGV[1] + "/*.rb") do |secFile|
  sec = secFile.split(/\//).last
  #puts sec

end

CSV.open("result.csv", "w") do |csv|
  hash.sort_by{|key,val| key}.each do |element|
    csv << element
  end
end
```

Problems (Errors: 1):

Error:

```
"Nikolay_Mihailov_25_f70059.rb:26:in `block in <main>': undefined method `each' for
"F10letter3_L10letter4.rb":String (NoMethodError) from
../results/b/results/Nikolay_Mihailov_25_f70059.rb:18:in `glob' from
../results/b/results/Nikolay_Mihailov_25_f70059.rb:18:in `<main>' "
```

Solution: There is no quick solution.

Program rank: 3

Borislav_Stratev_2_a65be5.rb

program code:

```
require 'csv'
a = Array.new
h = Hash.new
Dir.glob("#{ARGV[0]}/*.rb") do |dir_file_name_1|
  Dir.glob("#{ARGV[1]}/*.rb") do |dir_file_name_2|

    file_name_1 = dir_file_name_1.split(/\//).last.to_s
    file_name_2 = dir_file_name_2.split(/\//).last.to_s

    if(file_name_1 != file_name_2)
      file_name = file_name_1
      digit = file_name.split(/_/).last.split(/\./).first.to_s
      first_name = file_name.split(/_/).first.to_s
      full_first_name = first_name + digit
      full_first_name = full_first_name.to_s
      tmp = file_name.split("#{first_name}_")
      full_last_name = tmp.last.split(/_/).first.to_s + digit
      full_last_name = full_last_name.to_s
      h[full_last_name] = full_first_name
    end
  end
end

CSV.open("results.csv", "w") do |csv|
  a = h.sort
  a.each do |element|
    csv << element
  end
end
```

Problems (Errors: 0):

Common problem: "No such file or directory - result.csv. No result.csv file was found."

Solution: There is no quick solution.

"results.csv" => "result.csv" (only for the common problem)

Program rank: 3

Lili_Kokalova_22_e0ea9c.rb

program code:

```
require 'csv'
```

```
student = Array.new
```

```
student1 = Array.new
```

```
Dir.glob(ARGV[0]+'/**/*.rb').each do |file_name1|
  file_name = file_name1.split("/").last
  first_name = file_name.split("/").last.split("_").first
  p first_name
  last_name = file_name.split("/").last.split("_",2).last.split("_").first
  #task = file_name.split("_").last.split(".").first
  student << ["#{first_name}", "#{last_name}"]
end
```

```
Dir.glob(ARGV[1]+'/**/*.rb').each do |file_name1|
  file_name = file_name1.split("/").last
  first_name = file_name.split("/").last.split("_").first
  p first_name
  last_name = file_name.split("/").last.split("_",2).last.split("_").first
  #task = file_name.split("_").last.split(".").first
  student1 << ["#{first_name}", "#{last_name}"]
end
```

```
CSV.open("result.csv", "w") do |csv|
  student.each do |fn, ln|
    student1.each do |fn1, ln1|
      if fn != fn1
        if ln != ln1
          csv << ["#{fn1}", "#{ln1}"]
        end
      end
    end
  end
end
```

Problems (Errors: 0):

Solution: There is no quick solution.

Program rank: 3

Valentin_Varbanov_4_041472.rb

program code:

```
students_first_dir = Array.new
students_second_dir = Array.new

for i in 0..1
  directory = ARGV[i]
  if ARGV[i].split(/\/).last(1).to_s == "/"
    directory += "**/*.rb"
  else
    directory += "**/*/*.rb"
  end
  Dir.glob(directory).each do |dir|
    student = dir.split(/\//)
    if i == 0
      students_first_dir.push(student)
    else
      students_second_dir.push(student)
    end
  end
end

end

studentcsv = Array.new

students_first_dir.each do |std|
  match = 0
  students_second_dir.each do |std2|
    name = std.last.split(/_/)

    name2 = std2.last.split(/_/)
    for i in 0..1
      if name[i] == name2[i]
        match = 1
      end
    end
    end
    studentcsv.push(name[1], name[2])
  end

end

CSV.open("result.csv", "w") do |csv|
  studentcsv.each do |string|
    csv << string
  end
end

end
```

Problems (Errors: 3):

Errors:

```
“./results/b/results/Valentin_Varbanov_4_041472.rb:57:in `block in <main>’: undefined
local variable or method `name’ for main:Object (NameError) from
../results/b/results/Valentin_Varbanov_4_041472.rb:44:in `each’ from
../results/b/results/Valentin_Varbanov_4_041472.rb:44:in `<main>’ “
“Valentin_Varbanov_4_041472.rb:60:in `<main>’: uninitialized constant CSV
(NameError) ”
“/usr/lib/ruby/1.9.1/csv.rb:1729:in `<<’: undefined method `map’ for "Lastname":String
(NoMethodError)
  from Valentin_Varbanov_4_041472.rb:63:in `block (2 levels) in <main>’
  from Valentin_Varbanov_4_041472.rb:62:in `each’
  from Valentin_Varbanov_4_041472.rb:62:in `block in <main>’
  from /usr/lib/ruby/1.9.1/csv.rb:1354:in `open’
  from Valentin_Varbanov_4_041472.rb:61:in `<main>’
“
```

Solution: There is no quick solution.

Program rank: 1

Vladimir_Yordanov_9_4bbed0.rb

program code:

```
names = Hash.new
Dir.glob (ARGV[0] + "**.rb") do | file |
  if (ARGV[1] == true)
    ARGV[1] == false
  end

  slice = file.split("/").last
  first_name = slice.split('_')[0]
  second_name = slice.split('_')[1]
  if (second_name.length == 5)
    #print first_name
    #puts second_name
    names[first_name] = second_name
  end

end

names = names.sort
puts names

require 'csv'
CSV.open("results.csv", "w") do | csv |
  names.to_a.each do | element |
    csv << element
  end
end
```

Problems (Errors: 1):

Common error:

```
"Vladimir_Yordanov_9_4bbed0.rb:26:in `block in <main>': undefined method `length'
for nil:NilClass (NoMethodError) from
../results/b/results/Vladimir_Yordanov_9_4bbed0.rb:18:in `glob' from
../results/b/results/Vladimir_Yordanov_9_4bbed0.rb:18:in `<main>' "
```

Common problem: "No such file or directory - result.csv. No result.csv file was found."

Solution:

Common error:

```
if (second_name.length == 5) => if second_name != nil and
second_name.length == 5
```

Common problem:

```
"results.csv" => "result.csv"
```

Dir.glob problem:

```
"*.rb" => "/*.rb"
```

Sort problem:

```
names = names.sort_by{| key, val | [val, key]}
```

Program rank: 4

Veselina_Kolova_8_65630e.rb

program code:

```
require 'csv'
```

```
people = Hash.new
```

```
Dir.glob("#{ARGV[0]}/**/*.*").each do |text_file|
```

```
    if File.extname(text_file) text_file.include?(".rb") &&
text_file.split(/_/).last.split(/\./).first.to_i.is_a Integer then
        if (text_file.split("/").last.split("_").length == 3) then
            text_file = text_file.split("/").last
            if (text_file.split("_")[1].length == 5) then
                people[text_file.split("_")[1]] = text_file.split("_")[0]
            end
        end
    end
end
```

```
people = Hash[people.sort_by{| k,v | k}.reverse]
```

```
CSV.open("result.csv","w") do |csv|
    people.each do |element|
        csv << element
    end
end
```

Problems (Errors: 1):

Error:

```
"Veselina_Kolova_8_65630e.rb:23: syntax error, unexpected tIDENTIFIER, expecting
keyword_then or ';' or '\n' ...le.extname(text_file) text_file.include?(".rb") && text_file... ...
^ ../results/b/results/Veselina_Kolova_8_65630e.rb:23: syntax error, unexpected
tCONSTANT, expecting keyword_end ...t(/\./).first.to_i.is_a Integer then ... ^
../results/b/results/Veselina_Kolova_8_65630e.rb:31: syntax error, unexpected
keyword_end, expecting $end "
```

Solution:

```
    if File.extname(text_file) text_file.include?(".rb") &&
text_file.split(/_/).last.split(/\./).first.to_i.is_a Integer then =>
    if File.extname(text_file) && text_file.include?(".rb") &&
text_file.split(/_/).last.split(/\./).first.to_i.to_s == text_file.split(/_/).last.split(/\./).first then
```

Program rank: 4

Denis_Trenchev_4_b4c3f5.rb

program code:

```
require 'csv'
```

```
i = 0
```

```
arr1 = []
```

```
arr2 = []
```

```
arr3 = []
```

```
Dir.glob(ARGV[0]+"*.rb") do |first_folder|
```

```
  name = first_folder.split('/').last.split('.').first.split('_')
```

```
  if name.length == 3
```

```
    if name[1].to_s.length == 5
```

```
      arr1[i] = []
```

```
      arr[i][0] = name[0]
```

```
      arr[i][1] = name[1]
```

```
      i+=1
```

```
    end
```

```
  end
```

```
end
```

```
i = 0
```

```
Dir.glob(ARGV[1]+"*.rb") do |second_folder|
```

```
  name = second_folder.split('/').last.split('.').first.split('_')
```

```
  if name.length == 3
```

```
    if name[1].to_s.length == 5
```

```
      arr1[i] = []
```

```
      arr[i][0] = name_1[0] #ZIBIT NOT APPROVED there is no arr
```

```
      arr[i][1] = name_1[1]
```

```
      i+=1
```

```
    end
```

```
  end
```

```
end
```

```
i = 0
```

```
arr1.each do |compare1|
```

```
  arr2.each do |compare2|
```

```
    if compare2 == compare1
```

```
      arr3[i] = compare1
```

```
      i+=1
```

```
    end
```

```
  end
```

```
end
```

```
sort = arr3.sort_by{|asd| asd[1]}
```

```
CSV.open("students.csv", "w") do |csv| #WTF IS STUDENTS.CSV (result) NIGGA
```

```
  sort.each do |element|
```

```
    csv << element
```

```
  end
```

```
end
```


Problems (Errors: 1):

Error:

"Denis_Trenchev_4_b4c3f5.rb:31:in `block in <main>': undefined local variable or method `arr' for main:Object (NameError) from
../results/a/results/Denis_Trenchev_4_b4c3f5.rb:25:in `glob' from
../results/a/results/Denis_Trenchev_4_b4c3f5.rb:25:in `<main>' "

Solution:

```
arr[i][0] = name[0] => arr1[i][0] = name[0]  
arr[i][1] = name[1] => arr1[i][1] = name[1]
```

```
arr[i][0] = name_1[0] => arr2[i][0] = name[0]  
arr[i][1] = name_1[1] => arr2[i][1] = name[1]
```

```
students.csv => result.csv
```

Program rank: 3

Marian_Belchev_17_ad26e0.rb

program code:

```
require 'csv'
```

```
hash1 = Hash.new
```

```
hash2 = Hash.new
```

```
Dir.glob("#{ARGV[0]}*_**.rb") do |file1|
```

```
  Dir.glob("#{ARGV[1]}*_**.rb") do |file2|
```

```
    firstName1 = file1.split("/").last.split("_").first
```

```
    lastName1   = file1.split("/").last.split("_", 2).last.split("_").first
```

```
    number1 = file1.split("_").last.split(".").first
```

```
    firstName2 = file2.split("/").last.split("_").first
```

```
    lastName2  = file2.split("/").last.split("_", 2).last.split("_").first
```

```
    number2 = file2.split("_").last.split(".").first
```

```
    hash1[firstName1] = lastName1 + "." + number1
```

```
    hash2[firstName2] = lastName2 + "." + number2
```

```
  end
```

```
end
```

```
CSV.open("results.csv", "w") do |csv|
```

```
  hash2.sort.each do |key, value|
```

```
    if !hash1.has_key?(key) && !hash1.has_value?(value.split(".").first) &&
```

```
    !hash1.has_value?(value.split(".").last.to_i)
```

```
      csv << [key,value.gsub('.',",")]
```

```
    end
```

```
    if hash1.has_key?(key) && !hash1.has_value?(value.split(".").first) &&
```

```
    !hash1.has_value?(value.split(".").last.to_i)
```

```
      csv << [key,value.gsub('.',",")]
```

```
    end
```

```
  end
```

```
end
```

Problems (Errors: 0):

Solution:

```
"#{ARGV[0]}*_**.rb" => "#{ARGV[0]}/_*_**.rb"
```

```
"#{ARGV[1]}*_**.rb" => "#{ARGV[1]}/_*_**.rb"
```

```
"results.csv" => "result.csv"
```

Suggestions:

use hash.compare_by_identity so duplicate keys won't be discarded

Program rank: 4

Ivelin_Slavchev_10_835552.rb

program code:

```
require 'csv'
result = Hash.new
Dir.glob(ARGV[0] + "**").each do |file1|
  short1 = file1.split("/").last
  ext1 = short1.split(".").last
  names1 = short1.split(".").first
  digit1 = file1.split("_").last
  if (ext1 != "rb") or (digit1.to_i.to_s != digit1) or (short1.scan("_").count != 2)
    result[short1] = short1.length
  end
end
Dir.glob(ARGV[1] + "**").each do |file2|
  short2 = file2.split("/").last
  ext2 = short2.split(".").last
  names2 = short2.split(".").first
  digit2 = file2.split("_").last
  if (ext2 != "rb") or (digit2.to_i.to_s != digit) or (short2.scan("_").count != 2)
    result[short2] = short2.length
  end
end
result.sort_by{|k, v| v}
CSV.open("result.csv", "w") do |csv|
  result.each do |p|
    csv << p
  end
end
```

Problems (Errors: 1):

Error:

(digit2.to_i.to_s != digit) => (digit2.to_i.to_s != digit2)

Sort problem:

result.sort_by{|k, v| v} => result.sort_by{|k, v| [v, k]}

Program rank: 4

Stanislav_Valkanov_25_4482c1.rb

program code:

```
require 'csv'
a = Hash.new
path = ARGV[0]
Dir.glob(path + "**/*.rb") do |my_text_file|
  short_name = my_text_file.split('/').last.split('.').first
  name = short_name.split("_")[0]
  last = short_name.split("_")[1]
  last.to_s
  if (last.length == 5)&&(short_name.split("_").size == 3)
    a["#{name}"] = last
  end
end
CSV.open("result.csv", "w") do |csv|
  Hash[a.sort.reverse].each do |element|
    csv << element
  end
end
```

Problems (Errors: 1):

```
"Stanislav_Valkanov_25_4482c1.rb:23:in `block in <main>': undefined method `length'
for nil:NilClass (NoMethodError) from
../results/a/results/Stanislav_Valkanov_25_4482c1.rb:18:in `glob' from
../results/a/results/Stanislav_Valkanov_25_4482c1.rb:18:in `<main>' "
```

Soluton:

```
if (last.length == 5)&&(short_name.split("_").size == 3) =>
if last != nil && (last.length == 5)&&(short_name.split("_").size == 3)
```

Program rank: 4

Lubomir_Yankov_16_650c0b.rb

program code:

```
require 'csv'
def is_numeric(o)
  true if Integer(o) rescue false
end

array = []
count = 0

Dir.glob(ARGV[0] + "**").each do | file |
  ch_count = 0
  file_name = file.split("/").last.split("")

  file_name.each do | ch |

    if is_numeric(ch)

      ch_count += 1

    end

  end

  if ch_count == 9
    len = file_name.length
    array[count] = []
    array[count][0] = file_name
    array[count][1] = len/2.round
    count += 1
  end

end

array = array.sort_by { | el | el[0]}
CSV.open("results.csv", "w") do | csv |

  array.each do | element |

    csv << element

  end

end
```

Problems (Errors: 0):

Common error: "**results.csv**" => "**result.csv**"

file_name = file.split("/").last.split("") => file_name = file.split("/").last
file_name.each => file_name.each_char

Program rank: 4

Petko_Bozhinov_21_954dc6.rb

program code:

```
require 'csv'
```

```
class String
  def numeric?
    Float(self) != nil rescue false
  end
end
```

```
output = Array.new
i = 0
Dir.glob(ARGV[0] + "/*") do |file|
  file = file.split('/').last.split('.').first.split('_')
  Dir.glob(ARGV[1] + "/*") do |file2|
    file2 = file2.split('/').last.split('.').first.split('_')
    if "#{file[0]} #{file[1]}" == "#{file2[0]} #{file2[1]}"
      if file[2].numeric?
        if file[0].to_s.length == 5
          output[i] = Array.new
          output[i][0] = file[0]
          output[i][1] = file[1]
          i+=1
        end
      end
    end
  end
end
```

```
output = output.sort_by{ |element| element[1]}
CSV.open("result.csv", "w") do |csv|
  output.each do |pusher|
    csv << pusher
  end
end
```

Problems (Errors: 0)

Sort problem:

```
output = output.sort_by{ |element| element[1]} =>
output = output.sort_by{ |k, v| [v, k]}
```

Suggestions:

use hash.compare_by_identity so duplicate keys won't be discarded

Program rank: 5

Nikola_Marinov_20_add57e.rb

program code:

```
require 'csv'
def is_numeric(o)
  true if Integer(o) rescue false
end

array=[]

count=0
Dir.glob(ARGV[0] + "**/*.*").each do |file|

  full_name=file.split("/").last
  name = file.split("/").last.split(".").first_split("_")

  if name.length != 3 && !is_numeric(name[2])
    array(count) = []
    array(count) [0]=full_name
    array(count)[1]= full_name.to_s.length
    count += 1
  end
end

Dir.glob(ARGV[0] + "**/*.*").each do |file|

  full_name=file.split("/").last
  name = file.split("/").last.split(".").first_split("_")

  if name.length != 3 && !is_numeric(name[2])
    array(count) = []
    array(count) [0]=full_name
    array(count)[1]= full_name.to_s.length
    count += 1
  end
end
array = array.sort_by{|el| el[0]}

CSV.open("task.csv",w) do |csv|
  array=uniq.each do |element|
    csv << element
  end
end
```

Problems (Errors: 17):

Solution:

There is no quick solution.

Suggestions:

require 'ruby syntax'

Program rank: 1

Georgi_Ivanov_3_871529.rb:

program code:

```
require "csv"
```

```
arr = []
```

```
i = 0
```

```
Dir.glob(ARGV[0]+"*.rb") do |file|
```

```
  name = file.split('/').last.split('.').first.split('_')
```

```
  firstname = name[0]
```

```
  lastname = name[1]
```

```
  exercise = name[2]
```

```
  if firstname == " | | lastname == " | | exercise == "
```

```
    elsif name.length == 3
```

```
      if lastname.length == 5
```

```
        arr[i] = []
```

```
        arr[i][0] = name[0]
```

```
        arr[i][1] = name[1]
```

```
        i+=1
```

```
      end
```

```
    end
```

```
end
```

```
daiba = arr.sort_by{|asd| asd[0]}.reverse!
```

```
CSV.open("result.csv", "w") do |csv|
```

```
  daiba.each do |element|
```

```
    csv << element
```

```
  end
```

```
end
```

Problems (Errors: 0):

Programs is working...

Program rank: 5

Radoslav_Kostadinov_22_772118.rb

program code:

```
require 'csv'
file1 = Hash.new
file2 = Hash.new
```

```
path1 = ARGV[0]
path2 = ARGV[1]
```

```
Dir.glob("#{path1}*.rb") do |my_text_file|
  s = my_text_file.split(/\//).last.capitalize
  first_name = my_text_file.split("/").last.split("_").first
  last_name = my_text_file.split("/").last.split("_",2).last.split("_").first

  if s.count('_') == 2 and !((first_name == "" || first_name == "") ||
(last_name == "" || last_name == ""))
    file1[first_name] = last_name
  end
end
```

```
Dir.glob("#{path2}*.rb") do |my_text_file|
  s = my_text_file.split(/\//).last.capitalize
  first_name = my_text_file.split("/").last.split("_").first
  last_name = my_text_file.split("/").last.split("_",2).last.split("_").first

  if s.count('_') == 2 and !((first_name == "" || first_name == "") ||
(last_name == "" || last_name == ""))
    file2[first_name] = last_name
  end
end
```

```
CSV.open("result.csv", "w") do |csv|
  file1.sort.each do |first_name, last_name|
    file2.sort.each do |first_name1, last_name1|
      if first_name1 == first_name and last_name1 == last_name
        begin
          end
        else
          csv << [last_name1, first_name1]
        end
      end
    end
  end
end
end
```

Problems (Errors: 0):

Problem: wrong file checking algorithm

Solution:

Before:

```
CSV.open("result.csv", "w") do |csv|
  file1.sort.each do |first_name, last_name|
    file2.sort.each do |first_name1, last_name1|
      if first_name1 == first_name and last_name1 == last_name
        begin
          end
        else
          csv << [last_name1, first_name1]
        end
      end
    end
  end
end
end
```

After PIMPING:

```
CSV.open("result.csv", "w") do |csv|
  file1.sort.each do |first_name, last_name|
    flag = 0
    file2.sort.each do |first_name1, last_name1|
      if first_name1 == first_name and last_name1 == last_name
        flag = 1
        break
      end
    end
    if flag == 0
      csv << [first_name, last_name]
    end
  end
end
end
```

Program rank: 3

Simeon_Shopkin_23_56a835.rb

program code:

```
require 'csv'
```

```
arr = Array.new
```

```
  Dir.glob(ARGV[0]+"/*.rb") do |first_files|
```

```
    Dir.glob(ARGV[1]+"/*.rb") do |second_files|
```

```
      first_files = first_files.split("/").last.split(".").first.split("_")
```

```
      if first_files.size != 3
```

```
        if first_files != second_files
```

```
          print_count = first_files.split("/").last.split(".").first
```

```
          p = print_count.size.to_s
```

```
          print =
```

```
first_files[0].capitalize+"_"+first_files[1].capitalize+"_"+first_files[2]+","+p
```

```
          arr.push(print)
```

```
        end
```

```
      end
```

```
    end
```

```
  end
```

```
  CSV.open("result.csv","w") do |csv|
```

```
    arr.sort.each do |element|
```

```
      csv << [element]
```

```
    end
```

```
  end
```

Problems (Errors: 1):

Problem: Program doesn't match with the task's condition!

Solution: There is no quick solution.

Program rank: 1

Ivo_Valchev_11_6c8bd9.rb

program code:

```
hash_fold1={}
hash_fold2={}

```

```
Dir.glob("#{ARGV[0]}*.*)" do |file|
  name = file.split("/").last.split(".").first.split("_")
  isNum = Integer(name[2]) rescue nil
  if name[0] and name[1] and name[0].length == 5 and !isNum!=nil
hash_fold1.include?(name[0])
    hash_fold1["#{name[1]}"] = "#{name[0]}"
  end
end
Dir.glob("#{ARGV[1]}*.*)" do |file|
  name = file.split("/").last.split(".").first.split("_")
  isNum = Integer(name[2]) rescue nil
  if name[0] and name[1] and name[0].length == 5 and !isNum!=nil
and!hash_fold2.include?(name[0])
    hash_fold2["#{name[1]}"] = "#{name[0]}"
  end
end
File.open("result.csv", "w") do |csv|
  hash_fold1.sort.map do |key, value|
    if (hash_fold1[key]==hash_fold2[key])
      csv.puts("#{key},#{value}")
    end
  end
end
end

```

Programs (Errors: 0):

Problem with if conditions!

Solution:

```
!isNum!=nil hash_fold1.include?(name[0]) => delete
!isNum!=nil and!hash_fold2.include?(name[0]) => delete

```

Suggestions:

Do not use "!" for no reason!

Program rank: 2

Kristina_Pironkova_15_890ba0.rb

program code:

```
require 'csv'
results=Hash.new
Directory = ARGV[0]
Dir.glob("#{Directory}/*.rb") do |file_name|

  first_name = file_name.split("/").last.split("_").first.capitalize
  last_name=file_name.split("/").last.split("_",2).last.split("_").first.capitalize

  if first_name.length == 10

    results["#{last_name}"] = "#{first_name}"
  end

end

end

CSV.open("results.csv", "w") do |csv|
  results.sort.each do |first,last|

    csv << [last,first]

  end
end

Proglems (Errors: 0):
Common problem: "results.csv" => "result.csv"
Sorting problem:
  results.sort.each => results.sort_by{| key, val| val}.reverse.each
```

Program rank: 5

Hristo_Dachev_29_4a196f.rb

program code:

```
require 'csv'
```

```
hash = Hash.new
```

```
Dir.glob("#{ARGV[0]}*").each do |path|
  first_name = path.split("/").last.split("_").first
  last_name = path.split("/").last.split("_", 2).last.split("_").first
  digit =
    path.split("/").last.split("_", 2).last.split("_").last.split(".").first
  name = path.split("/").last
```

```
  if name.include? "_" then counter = name.count "_" end
```

```
  if (counter != 2) || (digit.to_i.to_s != digit)
```

```
    l = name.length
```

```
    hash[name] = l
```

```
  end
```

```
end
```

```
Dir.glob("#{ARGV[1]}*").each do |path|
```

```
  first_name = path.split("/").last.split("_").first
```

```
  last_name = path.split("/").last.split("_", 2).last.split("_").first
```

```
  digit =
    path.split("/").last.split("_", 2).last.split("_").last.split(".").first
```

```
  name = path.split("/").last
```

```
  if name.include? "_" then counter = name.count "_" end
```

```
  if (counter != 2) || (digit.to_i.to_s != digit)
```

```
    l = name.length
```

```
    hash[name] = l
```

```
  end
```

```
end
```

```
CSV.open("result.csv", "w") do |csv|
```

```
  hash.sort_by{ |k, v| v }.each do |name, length|
```

```
    csv << ["#{name}", "#{length}"]
```

```
  end
```

```
end
```

Problems (Erros: 0):

Program is working correctly!

Program rank: 5

Dimitar_Nestorov_7_0d5526.rb

program code:

```
require 'csv'
def is_numeric(o)
  true if Integer(o) rescue false
end
array = []
count = 0
Dir.glob(ARGV[0] + "/*.rb") do |file|
  name = file.split("/").last.split(".").first.split("_")

  name[0] = name[0].to_s
  name[0] = name[0].capitalize

  name[1] = name[1].to_s
  name[1] = name[1].capitalize

  if name.size == 3 && is_numeric(name[2])
    if name[1].length == 10

      array[count] = []
      array[count][0] = name[0].to_s
      array[count][1] = " #{name[1].to_s}"
      count += 1

    end
  end
end
array = array.sort_by {|el| -el[1]}
CSV.open("result.csv", "w") do |csv|
  array.uniq.each do |e|

    csv << e
  end
end
```

Problems (Errors: 1):

Error:

```
"Dimitar_Nestorov_7_0d5526.rb:42:in `block in <main>': undefined method `-@' for "
L10letter2":String (NoMethodError) from
../results/a/results/Dimitar_Nestorov_7_0d5526.rb:42:in `each' from
../results/a/results/Dimitar_Nestorov_7_0d5526.rb:42:in `sort_by' from
../results/a/results/Dimitar_Nestorov_7_0d5526.rb:42:in `<main>' "
```

Solution:

```
" #{name[1].to_s}" => " #{name[1].to_s}"
array = array.sort_by {|el| -el[1]} => array = array.sort_by {|el| el[1]} .reverse
```

Program rank: 4

Tihomir_Lidanski_27_dafd44.rb

program code:

```
require 'csv'
```

```
Dir.glob(ARGV[0] + "/*.") do |file|  
  name = file.split("/").last.split(".")
```

```
Dir.glob(ARGV[1] + "/*.") do |file|
```

```
  puts name.length % 2.round()
```

```
end
```

```
end
```

```
CSV.open("result.csv", "w") do |csv|
```

```
end
```

Problems (Errors: undefined):

Problem: unfinished program!

Solution: There is no quick solution!

Program rank: 1

Kalin_Marinov_14_12_bce70c.rb

program code:

```
require 'csv'
```

```
hash = Hash.new
```

```
Dir.glob("#{ ARGV[0] }/*") do |name|  
  name = name.split("/").last  
  short_name = name.split('_')[1]  
  if short_name.length == 5  
    hash[name] = short_name  
  end  
end
```

```
end
```

```
CSV.open("result.csv", "w") do |csv|  
  hash = hash.sort_by { |key, value| value }.reverse  
  hash.each |key| do  
    csv << key  
  end  
end
```

```
end
```

Problems (Errors: 2):

Error:

"Kalin_Marinov_14_12_bce70c.rb:31: syntax error, unexpected keyword_do_block

Kalin_Marinov_14_12_bce70c.rb:34: syntax error, unexpected keyword_end, expecting \$end "

Common error:

"Kalin_Marinov_14_12_bce70c.rb:24:in `block in <main>': undefined method `length'

for nil:NilClass (NoMethodError)

from Kalin_Marinov_14_12_bce70c.rb:21:in `glob'

from Kalin_Marinov_14_12_bce70c.rb:21:in `<main>' "

Solution:

```
if short_name.length == 5 => if short_name != nil and short_name.length == 5  
hash.each |key| do => hash.each do |key|  
hash[name] = short_name => hash[name.split('_').first] = short_name
```

Program rank: 3

Stanislav_Gospodinov_26_b36abb.rb

program code:

```
require 'csv'
hash = Hash.new

Dir.glob("#{ARGV[0]}*.rb") do |file|
  filename = file.split('/').last.split('.').first;
  if filename.split('_').length == 3
    if filename.split('_')[1].length == 5
      hash[filename.split('_')[0]] = filename.split('_')[1]
    end
  end
end

hash = Hash[hash.sort_by{|k, v| v}]

CSV.open("results.csv", "w") do |csv|
  hash.each do |key, value|
    csv << [key, value].flatten
  end
end
```

Problems (Errors: 0):

Common problem: No such file or directory - result.csv. No result.csv file was found.

Solution:

"results.csv" => "result.csv"

Program rank: 5

Borislav_Rusinov_2_6fb3ad.rb

program code:

```
a=ARGV[0]
require 'csv'
array=[]
Dir.glob("#{a}*.*)" do |my_text_file|
  name = my_text_file.split("/").last.split(".").first.split("_")
  if name[1]!=nil && name[0].length==10
    array << name[0] + "," + name[1]
  end
end
array.sort!
array.reverse!
File.open("results.csv", "w") do |csv|
  array.each do |arg|
    csv.puts(arg)
  end
end
```

Problems (Errors: 0):

Common problem: No such file or directory - result.csv. No result.csv file was found.

Solution:

"results.csv" => "result.csv"

Program rank: 5

Moretti_Georgiev_19_b7f153.rb

program code:

```
require 'csv'
```

```
student = Hash.new
```

```
Dir.glob("#{ARGV[0]}/*_**.rb") do |file|  
  firstName = file.split("/").last.split("_").first  
  lastName = file.split("/").last.split("_", 2).last.split("_").first  
  digit = file.split("/").last.split("_").last.split(".").first  
  if lastName.length == 10  
    student[firstName] = lastName  
  end  
end
```

```
CSV.open("result.csv", "w") do |csv_file|  
  student.sort.each do |key, value|  
    csv_file << ["#{key}", "#{value}"]  
  end  
end
```

Problems (Errors: 0):

Program is working correctly!

Program rank: 5

Momchil_Angelov_18_d8aa65.rb

program code:

```
require 'csv'
```

```
arr1=Array.new
```

```
arr2=Array.new
```

```
arr3=Array.new
```

```
a = ARGV[0]
```

```
b = ARGV[1]
```

```
i=0
```

```
Dir.glob(a + "/*.rb") do |my_text_file1|
```

```
  short= my_text_file1.split('/').last
```

```
  length1 = short.length
```

```
  shorter= short.split('.').first.split('_')
```

```
  first_name=shorter[0]
```

```
  last_name=shorter[1]
```

```
  digits=shorter[2].to_i
```

```
  if !first_name || !last_name || digits=0
```

```
    next
```

```
  else
```

```
    arr1 << ["#{short}" "#{length1}"]
```

```
  end
```

```
end
```

```
Dir.glob(b + "/*.rb") do |my_text_file2|
```

```
  short2= my_text_file2.split('/').last
```

```
  length2 = short2.length
```

```
  shorter2= short.split('.').first.split('_')
```

```
  first_name2=shorter2[0]
```

```
  last_name2=shorter2[1]
```

```
  digits2=shorter2[2].to_i
```

```
  if !first_name2 || !last_name2 || digits2=0
```

```
    next
```

```
  else
```

```
    arr2 << ["#{short2}" "#{length2}"]
```

```
  end
```

```
end
```

```
arr3 = arr1 & arr2
```

```
arr3 = arr3.sort_by {|el|
```

```
  el[1]
```

```
}
```

```
CSV.open("result.csv", "w") do |csv|
```

```
arr3.each do |element|
```

```
csv << element
```

```
end
```

```
end
```

Problems (Errors: 1):

Errors:

"Momchil_Angelov_18_d8aa65.rb:44:in `block in <main>': undefined local variable or method `short' for main:Object (NameError)

from Momchil_Angelov_18_d8aa65.rb:40:in `glob'

from Momchil_Angelov_18_d8aa65.rb:40:in `<main>' "

Solution (only for the error):

`shorter2= short.split('.').first.split('_') => shorter2= short2.split('.').first.split('_')`

Solution: There is no quick solution.

Program rank: 2

Kamena_Dacheva_13_0af18f.rb

program code:

```
student = Hash.new { | name, programs | name[programs] = [] }
directory = ARGV[0]
require "csv"

class String
  def is_number?
    Float(self) != nil rescue false
  end
end

Dir.glob("#{directory}/*.rb") do | my_repository |

  name_dir = my_repository.split("/").last

  name = name_dir.split("_").first.capitalize
  sir_name = name_dir.split("_", 2).last.split("_").first.capitalize
  program = name_dir.split("_").last.split(".").first
  ex = name_dir.split("_").last.split(":").last

  if name_dir.include? "_" then counter = name_dir.count "_" end
  student["#{name}"] << sir_name if ((counter == 2) && (sir_name.length == 5) &&
(program.is_number?) && (ex == "rb"))
end

CSV.open("result.csv", "w") do | csv |
  student.sort_by{ | k, v | v }.reverse.each do | f_name, l_name |
    csv << [f_name, l_name].flatten
  end
end

Problems (Errors: 0):
  Program is working correctly!

Program rank: 5
```

Stanimir_Bogdanov_24_ca514d.rb

program code:

```
require 'csv'
```

```
directory = ARGV[0]
```

```
students = Hash.new
```

```
Dir.glob("#{directory}*") do |filename|  
  unless (filename.split('/').last =~ /^[a-zA-Z0-9]+_[a-zA-Z0-9]+_[0-9]+.rb$/).nil?  
    first_name = filename.split('/').last.split('_')[0]  
    second_name = filename.split('/').last.split('_')[1]  
    students[first_name] = second_name if first_name.length == 10  
  end  
end
```

```
CSV.open("result.csv", "w") do |csv|  
  Hash[students.sort_by { |first, last| last }.reverse].each do |first, last|  
    csv << [ first, last ]  
    # puts "#{first},#{last}"  
  end  
end
```

Problems (Errors: 0):

Program is working correctly!

Program rank: 5

Veselin_Dechev_11A2_5f1c22.rb

program code:

```
a=ARGV[0]
require 'csv'
array=[]
Dir.glob("#{a}*.*)" do |my_text_file|
  name = my_text_file.split("/").last.split(".").first.split("_")
  if name[1]!=nil && name[0].length==10
    array << name[0] + "," + name[1]
  end
end
array.sort!
array.reverse!
File.open("results.csv", "w") do |csv|
  array.each do |arg|
    csv.puts(arg)
  end
end
```

Problems (Errors: undefined):

Unknown task's condition!

Program rank: 1

Dimitar_Terziev_6_88db52.rb

program code:

```
require 'csv'
arr = []
Dir.glob("#{ARGV[0]}*.rb*"){ | file |
  file_str = file.split('/').last
  if(file_str =~ /\A[a-zA-Z]+\_[a-zA-Z]+\_\d+\.rb\z/ && file_str.split('_')[1].size == 5)
    arr.push("#{file_str.split('_')[1]} #{file_str.split('_').first}")
  end
}
CSV.open('result.csv','w'){ | csv |
  arr.uniq.sort.each{ | el |
    csv << "#{el.split(' ').last} #{el.split(' ').first}".split(' ')
  }
}
```

Problems (Errors: 0):

Sort problem: Results should be sort by Lastname ASC.

Solution:

```
arr.uniq.sort.each => arr.uniq.sort_by{ | key, val | [val, key]}.each
```

Program rank: 5