Swinburne University of Technology

COS20007 Object Oriented Programming

11.1P - Clock in Another Language

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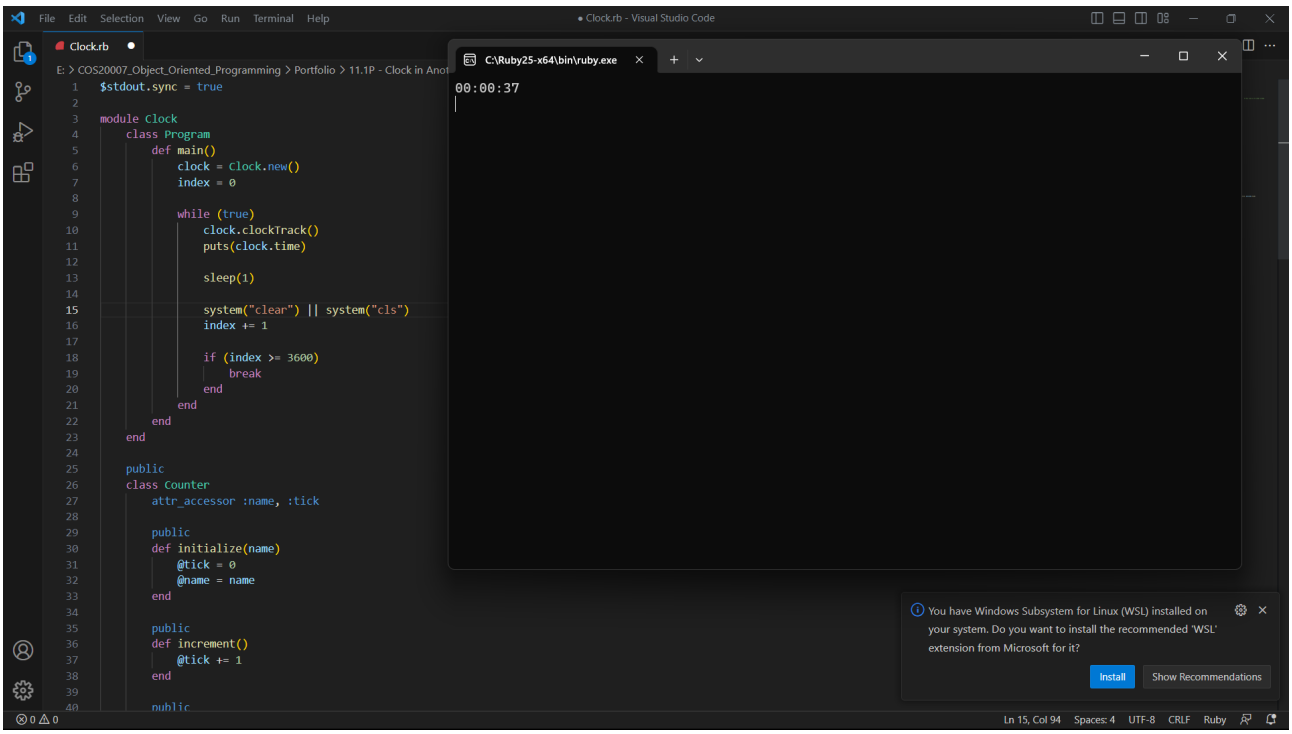
```
$stdout.sync = true

module Clock
    class Program
        def main()
            clock = Clock.new()
            index = 0

            while (true)
                clock.clockTrack()
                puts(clock.time)

                sleep(1)
                system("clear") || system("cls")
                index += 1

                if (index >= 3600)
                    break
                end
            end
        end

    public
    class Counter
        attr_accessor :name, :tick

        public
        def initialize(name)
            @tick = 0
            @name = name
        end

        public
        def increment()
            @tick += 1
        end

        public
        def reset()
            @tick = 0
        end
    end

    public
    class Clock
        def initialize()
        @seconds = Counter.new("Seconds")
        @minutes = Counter.new("Minutes")
        @hours = Counter.new("Hours")
        end

        private
```

```
54          def trackSecondsValue()
55              if (@seconds.tick < 59)
56                  @seconds.increment()
57              else
58                  @seconds.reset()
59                  @minutes.increment()
60              end
61          end
62
63          private
64          def trackMinutesValue()
65              if (@minutes.tick > 59)
66                  @minutes.reset()
67                  @hours.increment()
68              end
69          end
70
71          private
72          def trackHoursValue()
73              if (@hours.tick > 23)
74                  @hours.reset()
75              end
76          end
77
78          public
79          def clockTrack()
80              trackSecondsValue()
81              trackMinutesValue()
82              trackHoursValue()
83          end
84
85          public
86          def time
87              format("%02d:%02d:%02d", @hours.tick, @minutes.tick, @seconds.tick)
88          end
89
90          public
91          def clockReset()
92              @seconds.reset()
93              @minutes.reset()
94              @hours.reset()
95          end
96      end
97  end
98
99  Clock::Program.new.main()
```


File Edit Selection View Go Run Terminal Help
• Clock.rb - Visual Studio Code
Clock.rb
E: > COS20007_Object_Oriented_Programming > Portfolio > 11.1P - Clock in Anot
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module Clock
class Program
def main()
clock = Clock.new()
index = 0
while (true)
clock.clockTrack()
puts(clock.time)
sleep(1)
system("clear") || system("cls")
index += 1
if (index >= 3600)
break
end
end
end
end
public
class Counter
attr_accessor :name, :tick
public
def initialize(name)
@tick = 0
@name = name
end
public
def increment()
@tick += 1
end
public
C:\Ruby25-x64\bin\ruby.exe
00:00:37
You have Windows Subsystem for Linux (WSL) installed on your system. Do you want to install the recommended 'WSL' extension from Microsoft for it?
Install
Show Recommendations
Ln 15, Col 94 Spaces: 4 UTF-8 CRLF Ruby