Pemrograman Jaringan A

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<https://github.com/napurnama/Progjar-23>

Tugas 2

1. Buatlah sebuah program time server dengan ketentuan sebagai berikut
   1. Membuka port di port 45000 dengan transport TCP **(server.py)**

|  |
| --- |
| def main():  svr = Server('localhost', 45000)  svr.start()  class Server():  def \_\_init\_\_(self, ip, port):          self.ip = ip          self.port = port  def run(self):          self.my\_socket.bind((self.ip, self.port)) |
|  |
|  |

* 1. Server harus dapat melayani request yang concurrent, gunakan contoh multithreading **(server.py)**

|  |
| --- |
| class ProcessTheClient(threading.Thread):  def \_\_init\_\_(self, connection, address):  self.connection = connection  self.address = address   threading.Thread.\_\_init\_\_(self)  def run(self):  res=""  logging.warning("THIS IS THE RUN!")  while True:     try:      data = self.connection.recv(32)       if data:        data = data.decode()         if data[-2:] == '\r\n':         now = datetime.datetime.now()  now = now.time().strftime('%H:%M:%S\r\n')  res = "JAM " + now         self.connection.sendall(res.encode())         res = ""       else:        res = "ERR 404: {}".format(data)         self.connection.sendall(res.encode())         break       self.connection.close()    except OSError as e:  pass  self.connection.close() |

* 1. Request hanya dilayani dengan ketentuan
     1. Diawali dengan string “TIME dan diakhiri dengan karakter 13 dan karakter 10” **(client.py)**

|  |
| --- |
| *# Create a TCP/IP socket*      addr\_fam = socket.AF\_INET      stream = socket.SOCK\_STREAM      sock = socket.socket(addr\_fam, stream)      server\_address = ('localhost', 45000)      logging.info(f"connecting to {server\_address}")      sock.connect(server\_address)      message = 'TIME\r\n'      logging.info(f"sending {message}")      sock.sendall(message.encode()) |

* 1. Server akan merespon dengan jam dengan ketentuan
     1. Dalam bentuk string (UTF-8)

|  |
| --- |
| self.connection.sendall(res.encode()) |

* + 1. Diawali dengan “JAM<spasi><jam>”

|  |
| --- |
| res = "JAM " + now + '\r\n' |

* + 1. <jam> berisikan info jam dalam format “hh:mm:ss” dan diakhiri dengan karakter 13 dan karakter 10

|  |
| --- |
| now = datetime.datetime.now()  now = time().strftime('%H:%M:%S') |

1. Jalankan di lab environment
   1. Capturelah hasil eksekusi program server anda
      1. Jalankan Server

Text

Description automatically generated

* + 1. Request Valid

Text

Description automatically generated

* + 1. Jalankan Client

Text

Description automatically generated

* + 1. Request Invalid

Text

Description automatically generated

* + 1. Jalankan Client

Text

Description automatically generated