“TASDIQLAYMAN”

AXBOROT-KOMMUNIKATSIYA TEXNOLOGIYALARI VA ALOQA HARBIY INSTITUTI “AXBOROT TEXNOLOGIYALARI VA DASTURIY INJINIRING” KAFEDRASI BOSHLIG‘I

kapitan

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«Python dasturlash tili» fanidan 26-amaliymashg‘ulotini o‘tkazish

**Rejasi**

**Mashg‘ulot mavzu:** TCP server va tarmoq foydalanuvchisi o‘rtasida ma’lumot almashinuvini ta’minlash.

**Mashg‘ulotning maqsadi:** Kursantlarning amalda TCP server va mijoz dasturlarini tuzishni o’rganishlari hamda ushbu mijos va server dasturlari orqali berilgan topshiriqlarni oldingi bilimlaridan foydalangan holda amalda bajarishni o’rganishlari.

**Mashg’ulotda qo’llaniladigan interfaol metodlar:** Aqliy hujum, tezkor test yechish, topshiriqlar berish, tezkor savol javob, BBB metodi

**O‘quv guruhlari:** A-4/1-20, A-4/2-20, A-4/3-20.

**Vaqt**: 80 daqiqa.

**Mashg‘ulot o‘tish joyi**: 436 o‘quv xonasi.

**O‘quv-moddiy va texnik ta’minot:** Tarqatma materiallar, taqdimot, video proektor va kompyuterlar.

**O‘QUV SAVOLLARI VA VAQT XISOBI**

| **№** | **Dars taqsimlanishi va o‘quv savollari** | **Vaqt**  **(daqiqa)** | **Ko‘rgazmali qo‘llanma va O‘TV** |
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| 1 | **I. KIRISH QISMI:**  - Dalolat qabul qilish, Kursantlarning davomatini, mashg‘ulotga tayyorgarligini tekshirish;  - Tezkor axborotni yetkazish (Agar bor bo‘lsa);  - Darsning mavzusi va maqsadini e'lon qilish;  - mavzu materialini bayon qilishga kirishish. | **10 daqiqa** |  |
| 2 | **O‘quv savollari:**   1. TCP server va mijoz bilan ishlash.   **Kursantlar mustaqil bajarishlari uchun topshiriqlar:**  1. Server va client dasturi shunday tuzilsinki, mijoz tomonidan serverga jo’natilgan login va parol serverdagi oldindan kiritib qo’yilgan login va parol bilan solishtirilsin va tekshirib ko’rilib, mijozga tekshiruv natijasiga mos xabar jo‘natilsin.  **Server dasturi**  **import** socket  HOST = **"127.0.0.1"**  PORT = 65432  login = b"admin" password = b"admin" **with** socket.socket() **as** s:  s.bind((HOST, PORT))  s.listen()  conn, addr = s.accept()  **with** conn:  print(**f"Connected by {**addr**}"**)  **while True**:  data = conn.recv(1024)  **if not** data:  **break** data = data.split()  **if** data[0] == login **and** data[1] == password:  conn.sendall(str.encode(**f"Welcome to your account!"**))  **else**:  conn.sendall(str.encode(**f"ERROR! Something is wrong!"**))  **Mijoz dasturi**  **import** socket  HOST = **"127.0.0.1"** PORT = 65432  login = input(**"Enter your LOGIN, Please!"**) password = input(**"Enter your PASSWORD, Please!"**) sender =**f'{**login**} {**password**}'  with** socket.socket(socket.AF\_INET, socket.SOCK\_STREAM) **as** s:  s.connect((HOST, PORT))  s.sendall(str.encode(sender))  data = s.recv(1024)  print(**f"Received {**data**!r}"**)  2. Server va client dasturi shunday tuzilsinki, server dasturi mijoz tomonidan jo‘natilgan satr tarkibidagi sonlarning, katta harflar va kichik harflarning sonini mijozga qaytarsin.  **Server dasturi**  **import** socket  HOST = **"127.0.0.1"** PORT = 65432 counter\_digit = 0 counter\_A = 0 counter\_a = 0 **with** socket.socket() **as** s:  s.bind((HOST, PORT))  s.listen()  conn, addr = s.accept()  **with** conn:  print(**f"Connected by {**addr**}"**)  **while True**:  data = conn.recv(1024)  **if not** data:  **break  for** i **in** str(data):  **if** i.isnumeric():  counter\_digit +=1  **if** i.isupper():  counter\_A += 1  **if** i.islower():  counter\_a += 1   conn.sendall(str.encode(**f"Sonlar soni:{**counter\_digit**} ta, Katta harflar soni:{**counter\_A**} ta, Kichik harflar soni: {**counter\_a**} ta"**))  **Client dasturi:**  **import** socket  HOST = **"127.0.0.1"** PORT = 65432  text = input(**"Enter your text, Please!"**)  **with** socket.socket(socket.AF\_INET, socket.SOCK\_STREAM) **as** s:  s.connect((HOST, PORT))  s.sendall(str.encode(text))  data = s.recv(1024)  print(**f"Received {**data**!r}"**) | **60 daqiqa** | Slaydlar, kompyuterlar,  Tarqatma materiallar |
| 3 | **III. YAKUNIY QISM:**  - Mavzu bo‘yicha savollarga javob berish;  - Topshiriqlarni berish;  - Topshiriq bo‘yicha ko‘rsatmalar berish. | **10 daqiqa** |  |

O‘qituvchi :

QK xizmatchisi Sapayev SH.R.