SER 321 B Session

SI Session

Sunday, March 31st 2024

7:00 pm - 8:00 pm MST

Agenda

- Protocol Tips!
- TCP vs. UDP Review
- Server Socket Steps
- Handling Client Connection

SI Session Expectations

Thanks for coming to the **SER 321** SI session. We have a packed agenda and we are going to try to get through as many of our planned example problems as possible. This session will be recorded and shared with others.

- If after this you want to see additional examples, please visit the drop-in tutoring center.
- We will post the link in the chat now and at the end of the session.
  - tutoring.asu.edu
- Please keep in mind we are recording this session and it will be made available for you to review 24-48 hours after this session concludes.
- Finally, please be respectful to each other during the session.

Interact with us:

Zoom Features

Zoom Chat

- Use the chat feature to interact with the presenter and respond to presenter's questions.
- Annotations are encouraged

SER 321
Protocol Tips

Stay Organized!

Try to emulate the structure in 3-1

Format your Markdown!

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Protocol Tips

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    * [General error responses:]
<!-- TOC -->
```

```
## Protocol: ##

### Echo: ###

Request:

    {
        "type" : "echo", -- type of request
        "data" : <String>  -- String to be echoed
    }

General response:
```

Protocol:

Echo:

Request:

```
{
    "type" : "echo",
    "data" : <String>
}
```

General response:

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Protocol Tips

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```
## Protocol: ##

### Echo: ###

Request:

    {
        "type" : "echo", -- type of request
        "data" : <String>  -- String to be echoed
    }

####General response:####
```

Protocol:

Echo:

Request:

```
{
    "type" : "echo", -- ty
    "data" : <String>  --
}
```

####General response:####

Spaces are important!

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Protocol Tips

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<!-- TOC -->
```

```
## Protocol: ##

### Echo: ###

#### Request: ####

    {
        "type" : "echo", -- type of request
        "data" : <String>  -- String to be echoed
    }

#### General response: ####
```

Protocol:

Echo:

Request:

```
{
    "type" : "echo",
    "data" : <String>
}
```

General response:

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TCP vs. UDP Matching

Check out the recording for the solution!

Unreliable

TCP

OR

UDP

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TCP vs. UDP Matching

Check out the recording for the solution!

Connection-Oriented

TCP

OR

UDP

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TCP vs. UDP Matching

Check out the recording for the solution!

Uses Streams

TCP

OR

UDP

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TCP vs. UDP Matching

Check out the recording for the solution!

Has Less Overhead

TCP

OR

UDP

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TCP vs. UDP Matching

Check out the recording for the solution!

Has Less Overhead

TCP

OR

UDP

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Server Socket

Steps for the **Server Socket**

1.
2.
3.
4.
5.
6.
7.
8.
9.

Check out the recording for the solution!

Assign 3-1 Starter Code

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Server Socket

Check out the recording for the discussion!

1. Define Params
2. Create Socket
3-5. Mark Socket to Listen
6. Wait for Connection
7. Handle Client Connection
8. Close Client Connection
9. Continue Listening

```
public static void main (String args[]) {

  if (args.length != 1) {
    System.out.println("Expected arguments: <port(int)>");
    System.exit( status: 1);
  }

  try {
    port = Integer.parseInt(args[0]);
  } catch (NumberFormatException nfe) {
    System.out.println("[Port|sleepDelay] must be an integer");
    System.exit( status: 2);
  }

  try {
    //open socket
    ServerSocket serv = new ServerSocket(port);
    System.out.println("Server ready for connections");


    while (true){
      System.out.println("Server waiting for a connection");
      sock = serv.accept(); // blocking wait
      System.out.println("Client connected");
      // ...
```

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Scratch Space

Questions?

Survey:

http://bit.ly/ASN2324

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Upcoming Events

SI Sessions:

- Monday, April 1st at 7:00 pm MST
- Thursday, April 4th at 7:00 pm MST
- Sunday, April 7th at 7:00 pm MST

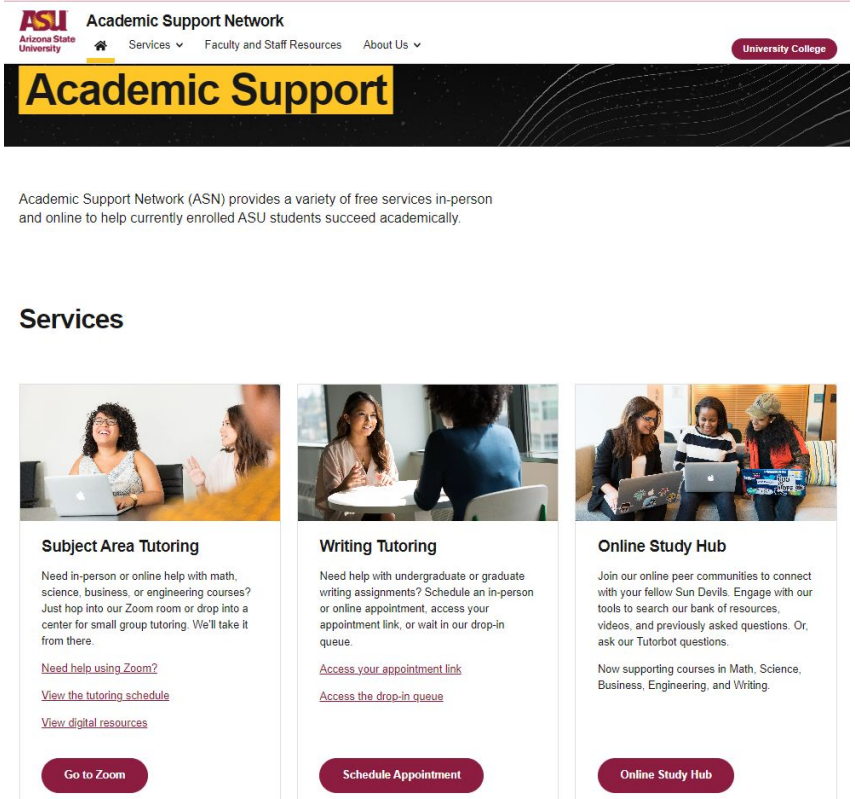
Review Sessions:

- Sunday, April 21st at 7:00 pm MST
- **Monday, April 25th Session is *cancelled***

More Questions?

Check out our other resources!

tutoring.asu.edu

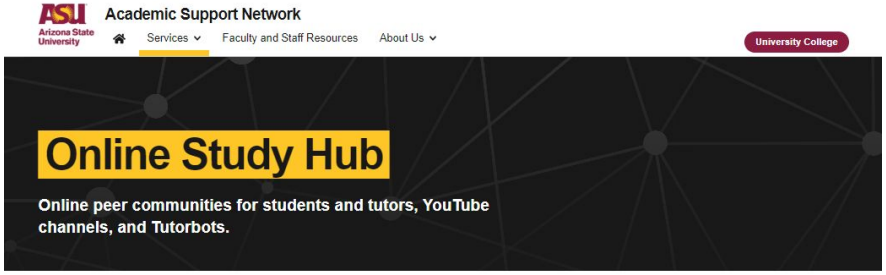


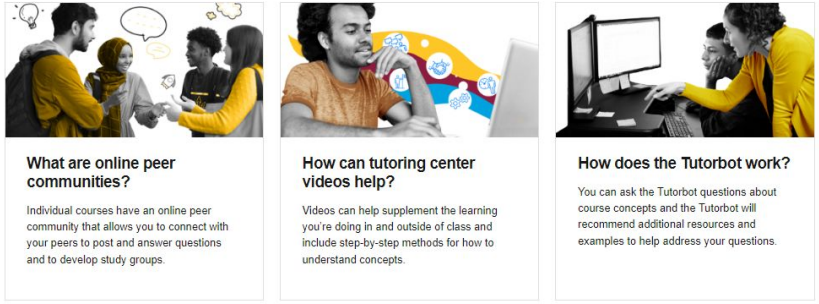
1. **Click on ‘Go to Zoom’ to log onto our Online Tutoring Center.**
2. **Click on ‘View the tutoring schedule’ to see when tutors are available for specific courses.**

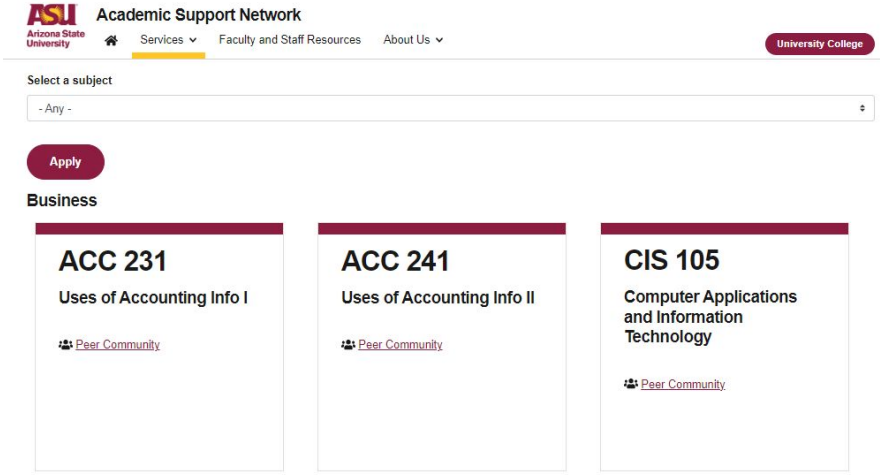
More Questions?

Check out our other resources!

tutoring.asu.edu/online-study-hub



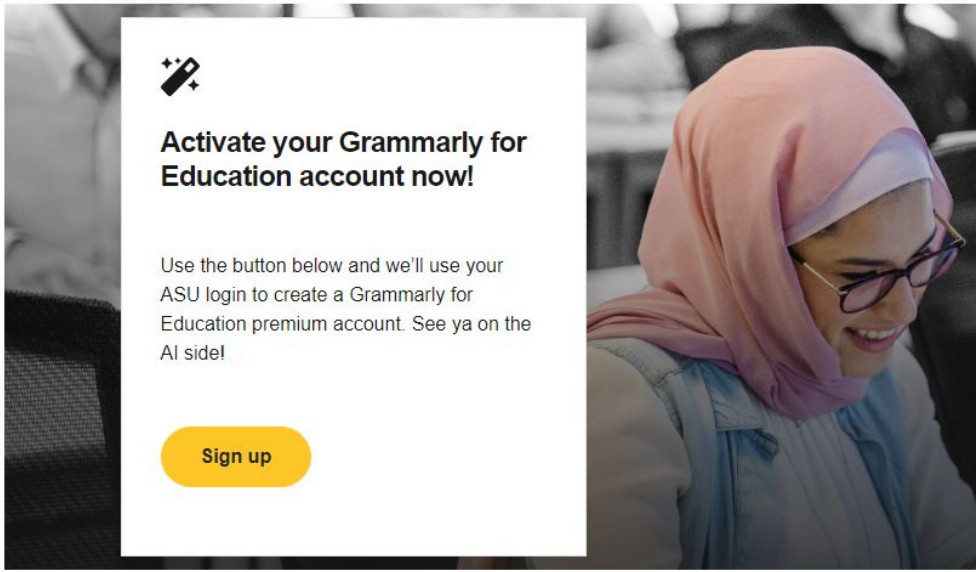




Don't forget to check out the Online Study Hub for additional resources!

Expanded Writing Support Available

Including Grammarly for Education, at no cost!



tutoring.asu.edu/expanded-writing-support

*Available slots for this pilot are limited

Additional Resources

- Course Repo
- Gradle Documentation
- GitHub SSH Help
- Linux Man Pages
- OSI Interactive
- MDN HTTP Docs
  - Requests
  - Responses
- JSON Guide
- org.json Docs
- javax.swing package API
- Swing Tutorials