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| Logo Fast | **NATIONAL UNIVERSITY**  **of Computer & Emerging Sciences, Lahore** |

Department of Computer Science

**CS411 – Network Security**

**May 31st 2020**

**Assignment 4 – Weight 8 %**

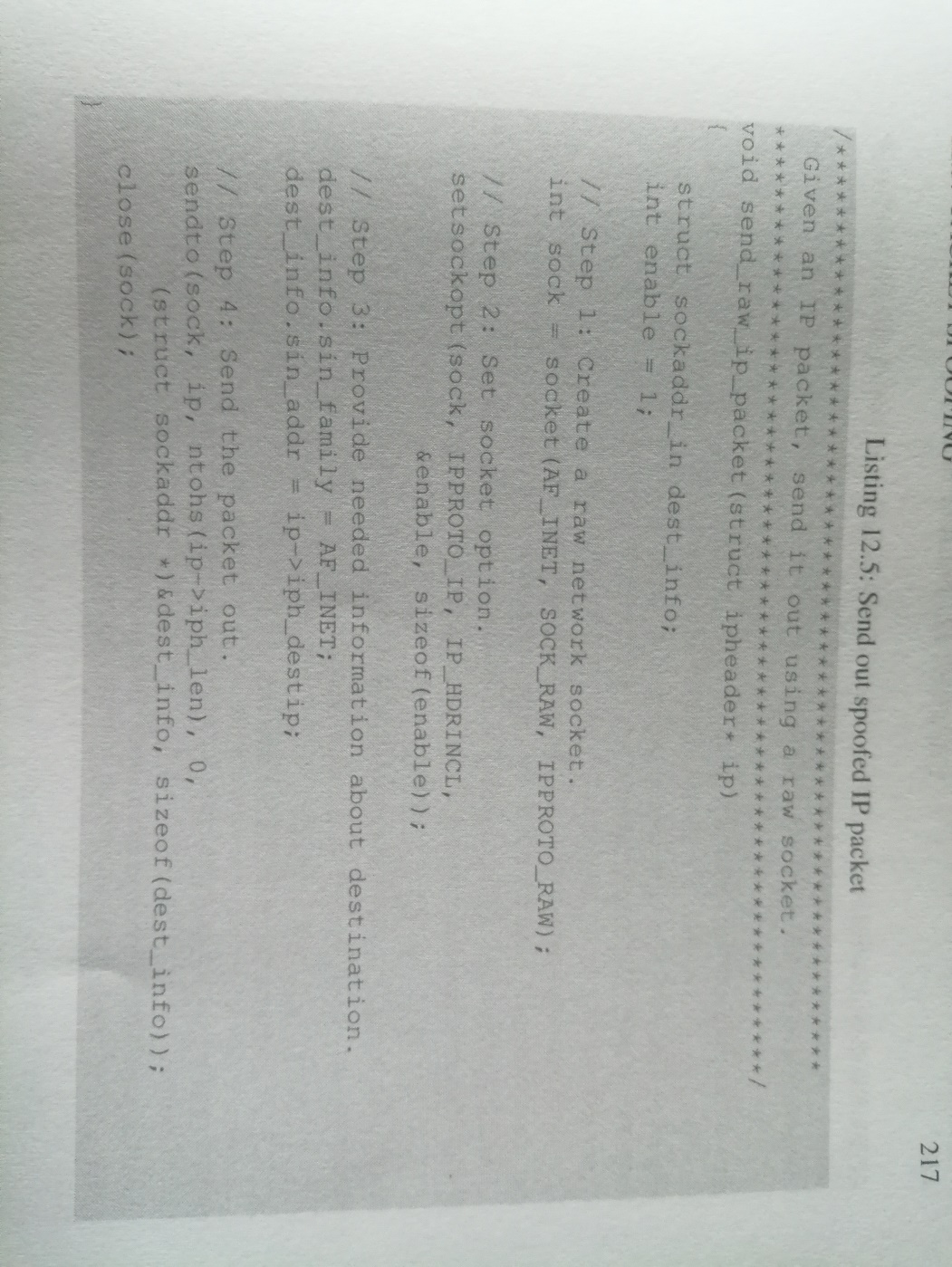
**Group assignment**

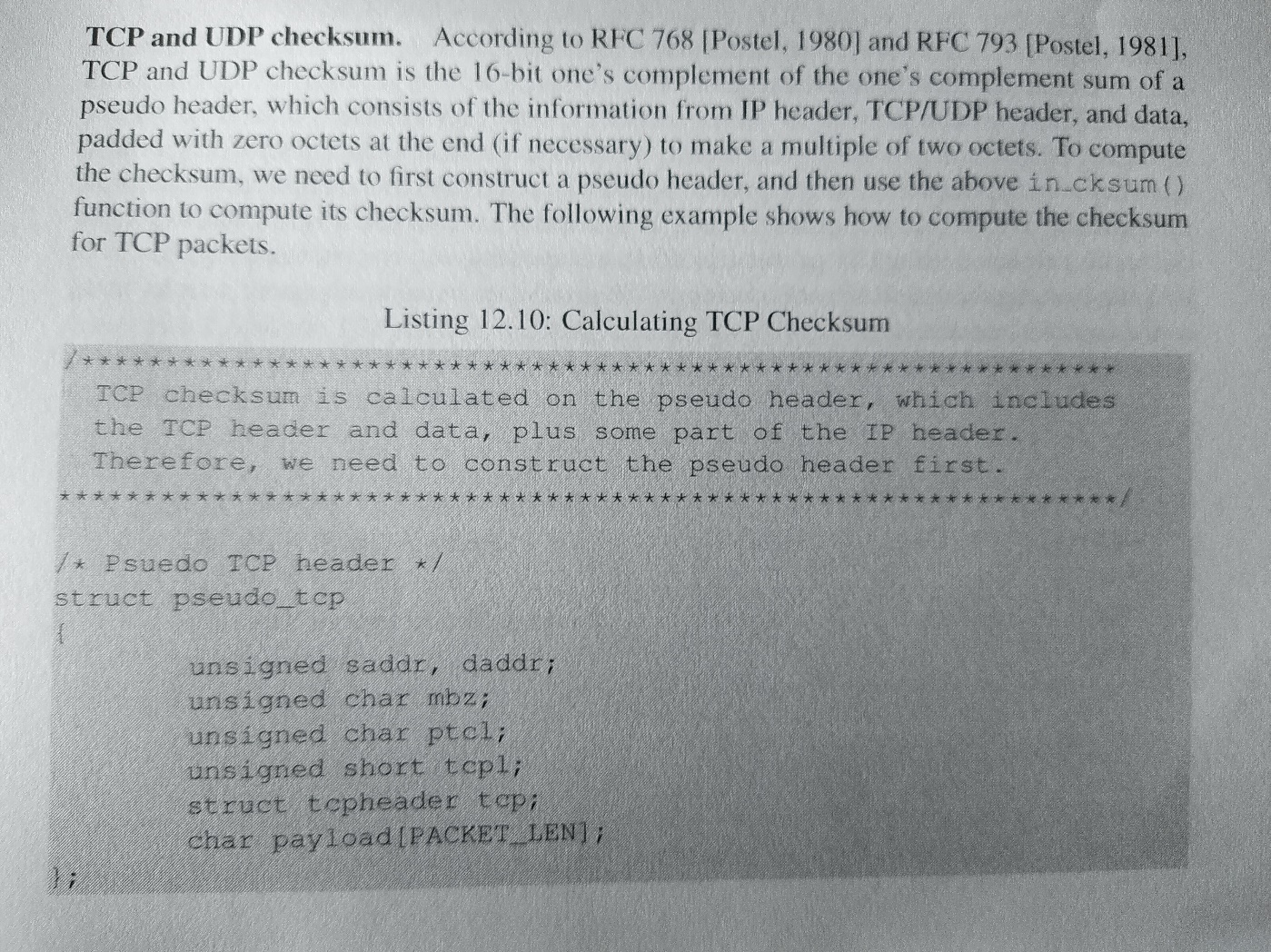
1. Make groups of 2 (from the same section). You can retain the same group members from the previous assignment or make new ones. You are responsible for the groups dynamics therefore select your group partner wisely
2. Read the instructions provided in “Attacks on the TCP Protocol” (Chapter 13 (or 16 in the newer version) of A Hands-on Approach by Wenliang Du). Pdf of Chapter 16 from the newer version is **available on SLATE**.
3. **Launch the SYN Flooding attack (section 13.2.4)** using the VM from SEED LABS and your own code (screenshot attached below). Summarize the countermeasures presented in 13.2.5. (2 points)
4. **Launch the TCP Reset attack (13.3) on telnet (13.3.4), SSH (13.3.5) and video streaming (13.3.6)** connections. **Discuss the differences** in all three attacks. **Why** are there differences? (3 points)
5. Launch the **TCP Session Hijacking Attack (13.4)**. Complete all the steps through section 13.4.5. (3 points)
6. Prepare a word document **reporting all the steps carried out**. Use screen shots to show your actions and their results. For each attack, **half the points are for successfully carrying out the attack and the other half are for properly summarizing, discussing, and documenting the steps.**

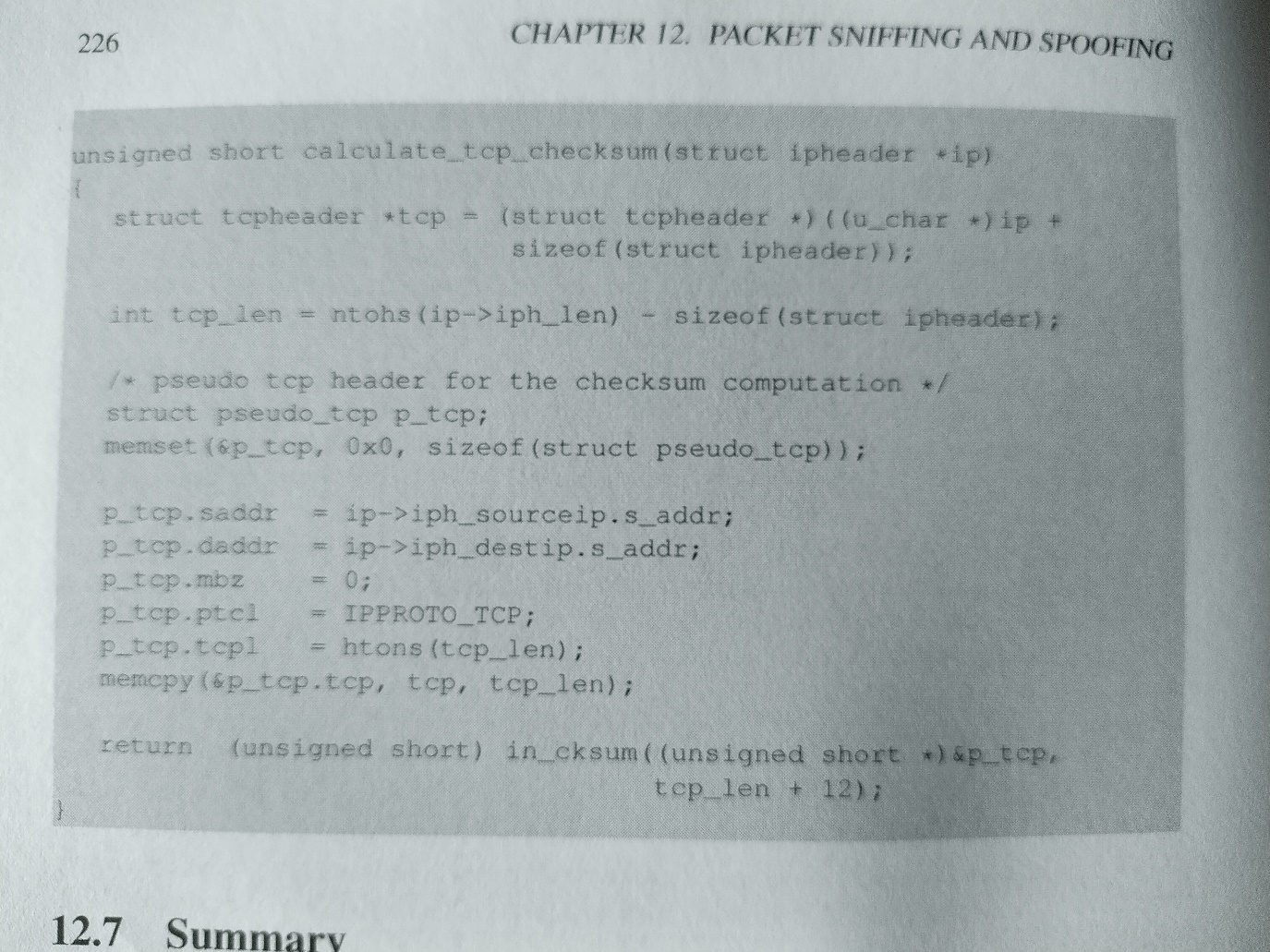
Notes

1. Names of both group members should be visible on every screen shot.
2. Title page of the assignment should clearly mention the names and IDs of both groups members
3. You are also allowed to collaborate with you friends as much as you like. However, copying their screen shots is .
4. Since we are at the end of the semester, the deadline is **FIRM**.

Deadline to submit: Sunday June 10th, 11:55 PM via SLATE.

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