COMP3331/9331 Computer Networks and Applications Assignment

Learn about DNS protocols, algorithms, and technologies in this exciting and comprehensive assignment for Term 2, 2023.

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Today's task

1. Assignment SPEC — Overview
2. TCP/UDP client and server design (demo code)
3. Code reading: dnsPython (simple query)
4. Q&A (any question)

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Purpose of the Assignment

1 Real-world scenarios 🌍

Get hands-on experience designing and implementing network protocols and algorithms.

2 Practice for the future 💻

Prepare for a career in networking and applications with a deep understanding of the field. DNS is one of the most important concept for software engineers.

3 Develop essential skills 🧠

Enhance your critical thinking, problem-solving, and collaboration skills through the creation of this cutting-edge assignment.

*Ref: «**Video explaining the assignment**» **by Mahbub***

https://webcms3.cse.unsw.edu.au/COMP3331/23T2/resources/89522

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Assignment Requirements

Python3 basics

- String manipulation
- Layered architecture
- GUI design

Networking Protocols

- TCP/UDP protocol design
- Error detection and recovery
- Code readings

Code reading

www.dnspython.org

dnspython | dnspython

dnspython

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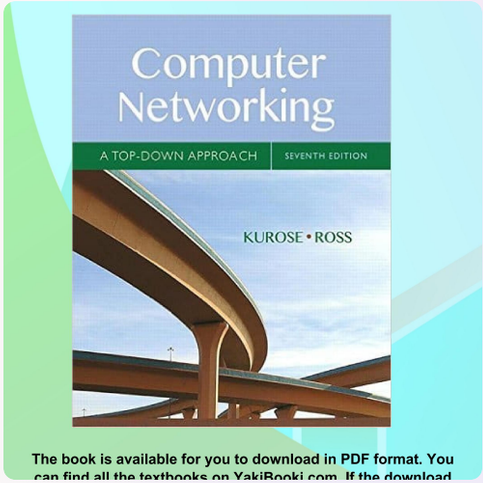
Recommended Readings



Textbook

An excellent book on computer networking and architectures.

PDF file

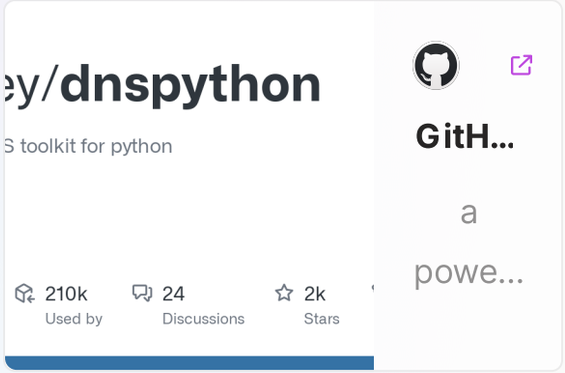
Assignment SPEC

An excellent book on computer networking and architectures.

PDF file

dnspython Library

A comprehensive DNS toolkit for python.



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Submission Details and Deadlines

1

Assignment Released

Week 6

2

Python Help session week 7

Tuesday 18 PM Assignment 101

Friday 10AM Demo for Simple DNS

3

Python Help session week 8

Tuesday 18 PM Demo for Caching

Friday 10AM Demo for Error Handling

4

Python Help session week 9

Tuesday 18 PM Advanced DNS

Friday 10AM Q&A

5

Submission Deadline

Week 9 Friday, 28 July 2023 (Week 9)

6

Results Announced

~Week 12

Submission Method

Online submission via WebCMS or GIVE system

Submission Requirements

PDF report + python files

Submission Guidelines

Submit before the deadline & ensure correct filenames

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Conclusion

1 Read SPEC 🌟

The Assignment SPEC is worth to read it again and again. Carefully check the requirements for the applications.

2 Deep understanding 🧐

Develop a comprehensive understanding of networking protocols, algorithms, and technologies.

3 Start Now 🚀

Prepare yourself now! The time is very limited.

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