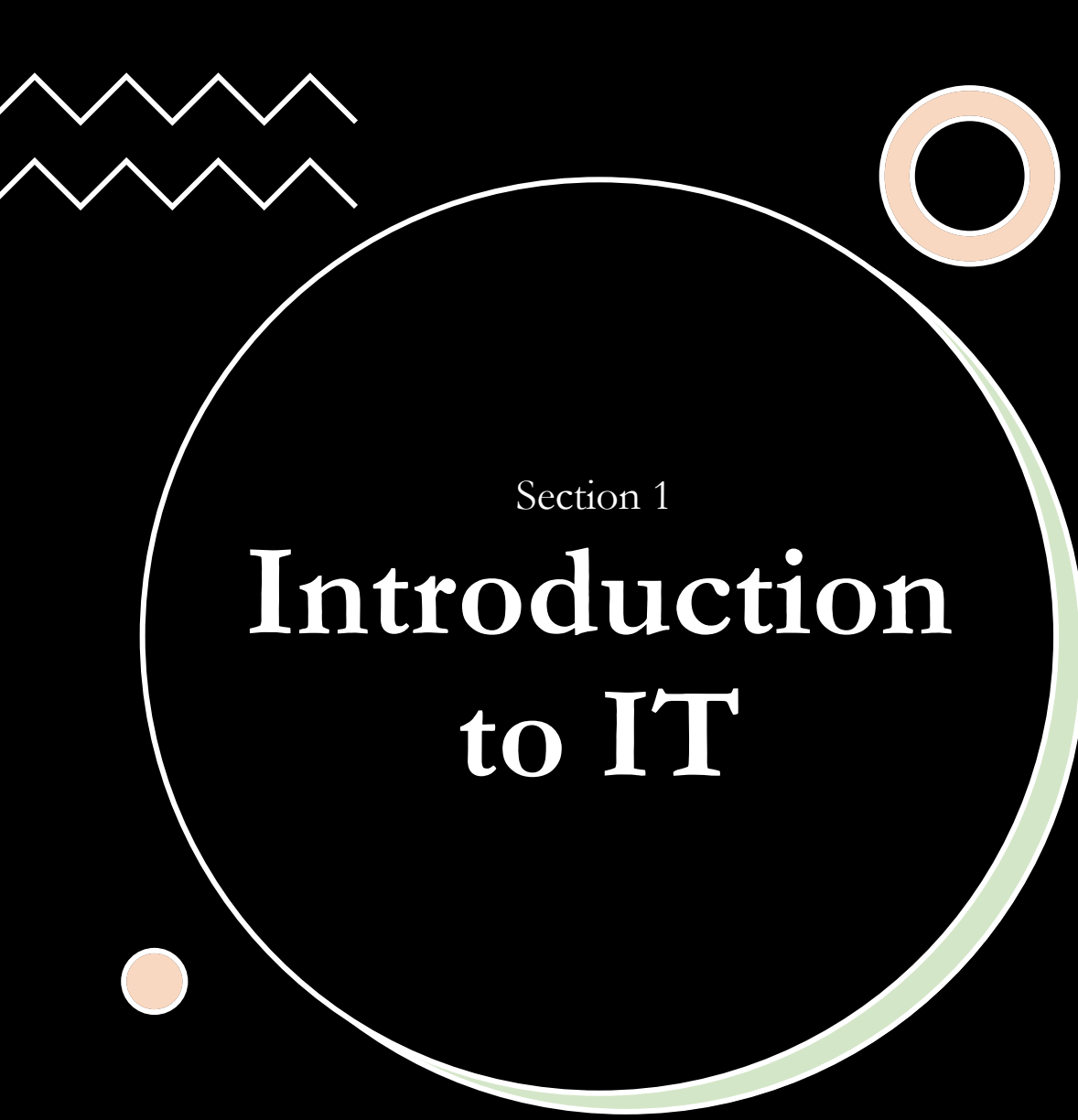


Overview



Course overview

1 thru 14 sections



Section 1

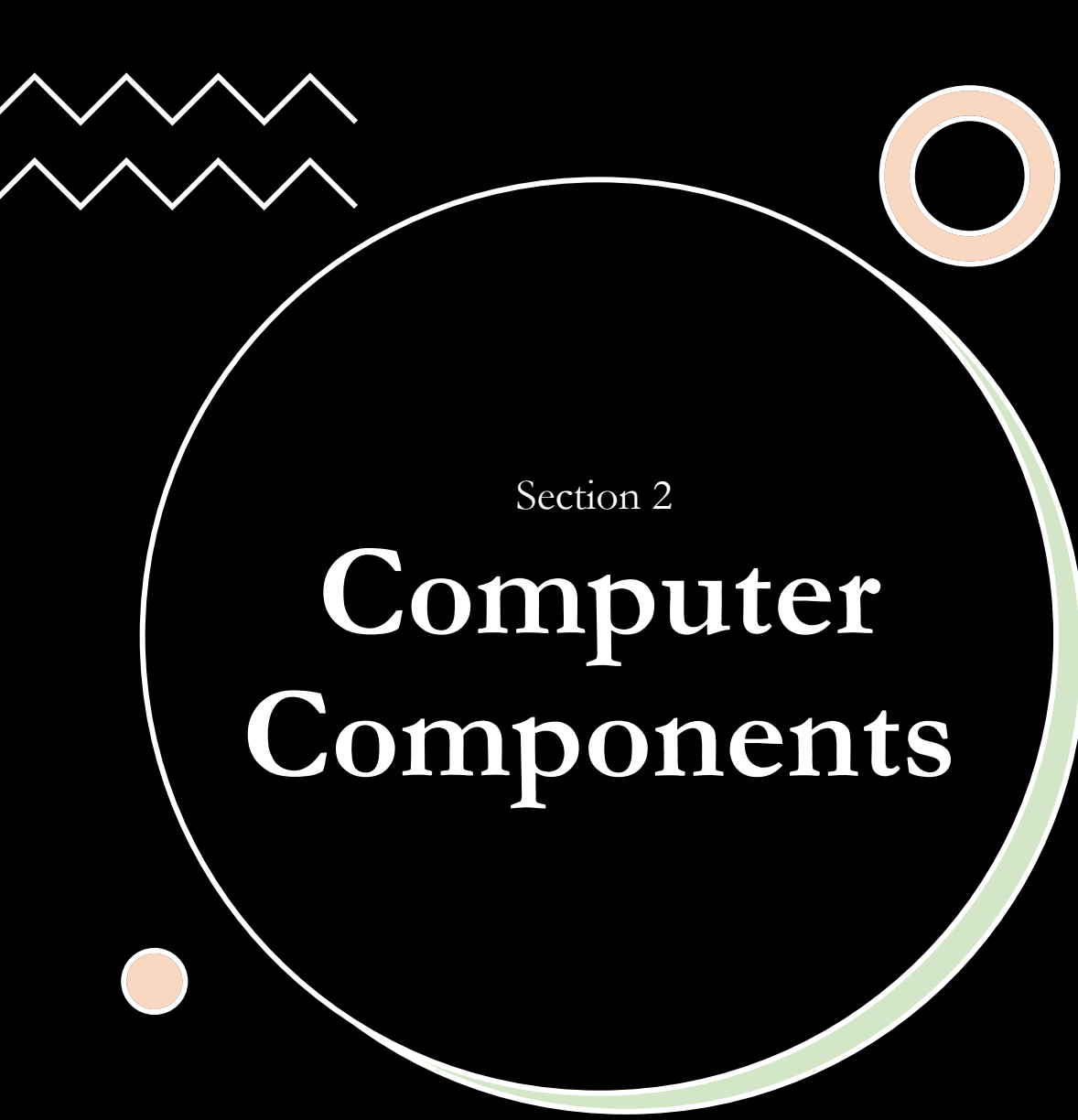
Introduction to IT

- True meaning of IT
- Importance of IT
- What is a computer?
- Computer language (0 and 1 concept)
- Quiz and handouts



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Section 2


Computer Components

- Hardware
- Software or operating system
- Application software
- Networking
- Database
- Storage
- Virtualization and Cloud
- Security
- Quiz, handouts and homework



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Section 3

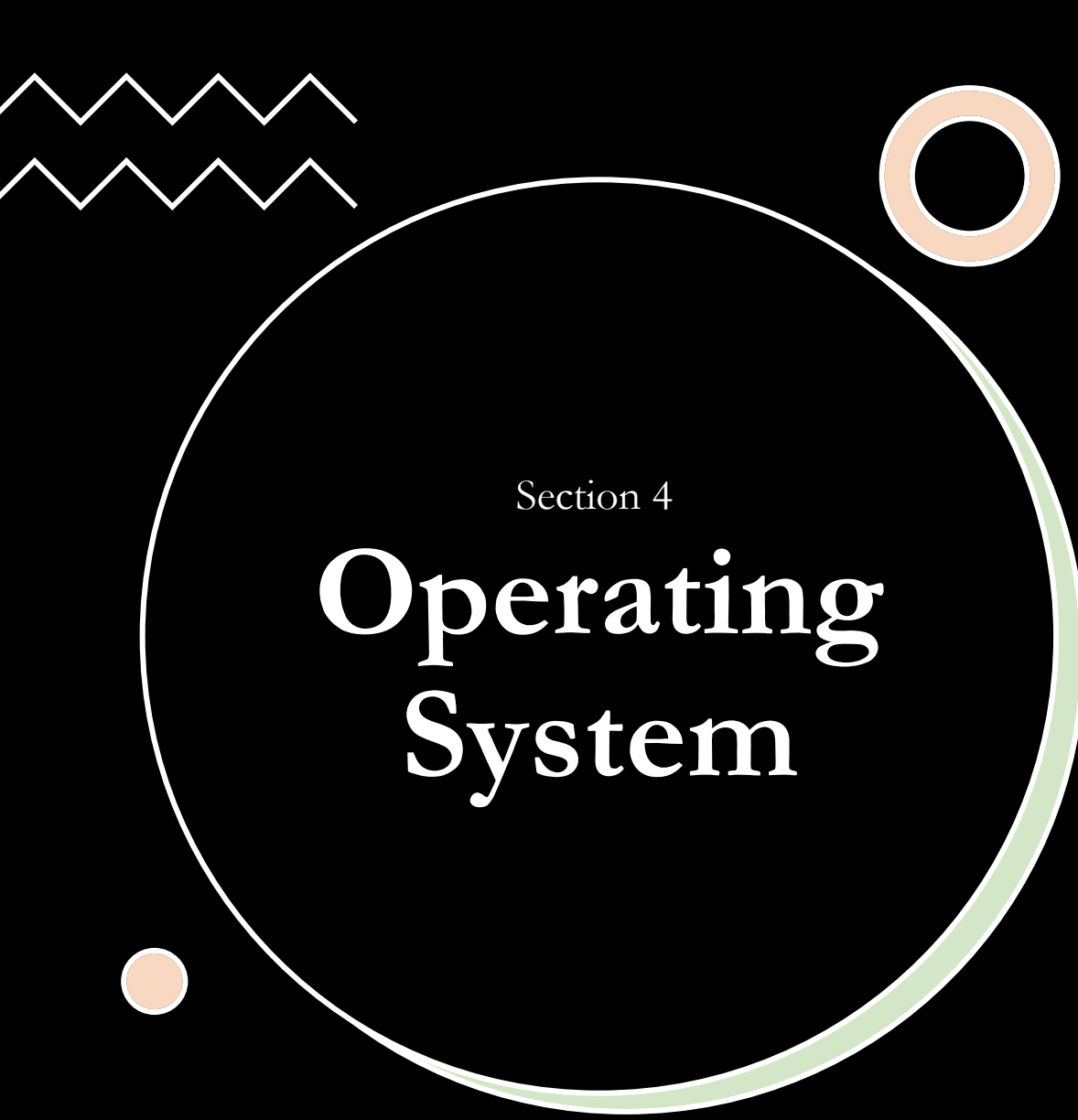
Hardware

- Different types of computers
- RAM and installing RAM
- CPU, CPU cores and sockets
- Installing CPU
- 32 vs. 64-bit processing
- Hard disk drive
- Motherboard
- Other internal parts of a computer (Fan, power supply, CDROM etc.)
- External components of a computer (Keyboard, monitor, mouse, printer etc.)
- Hardware manufacturers
- Computer comparison with human body
- Quiz, handouts and homework



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Section 4

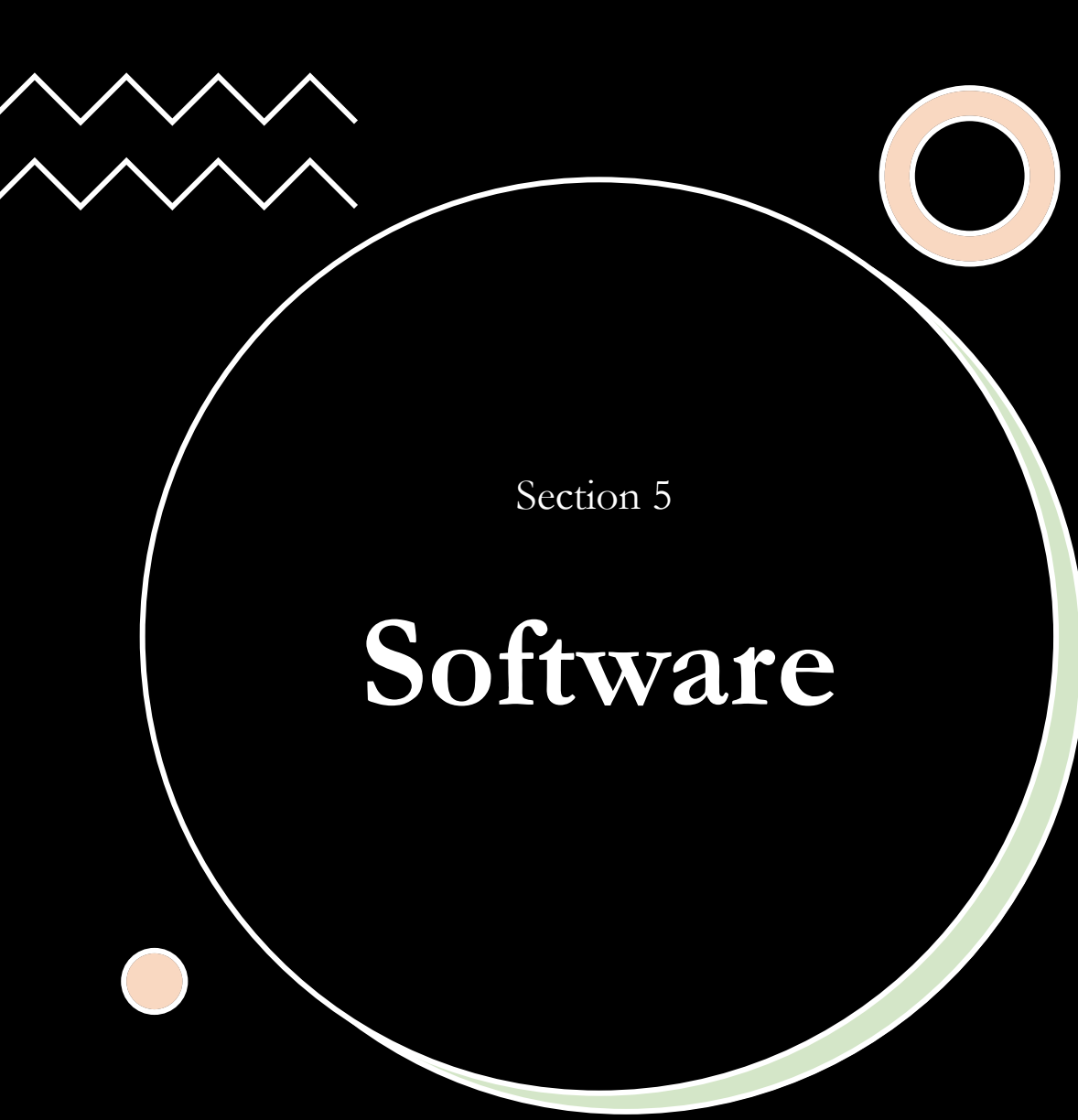
Operating System

- Types of operating systems
- Function of OS
- Building OS
- CLI vs. GUI operating systems
- Computer boot process
- OS file systems management
- Quiz, handouts and homework



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Section 5

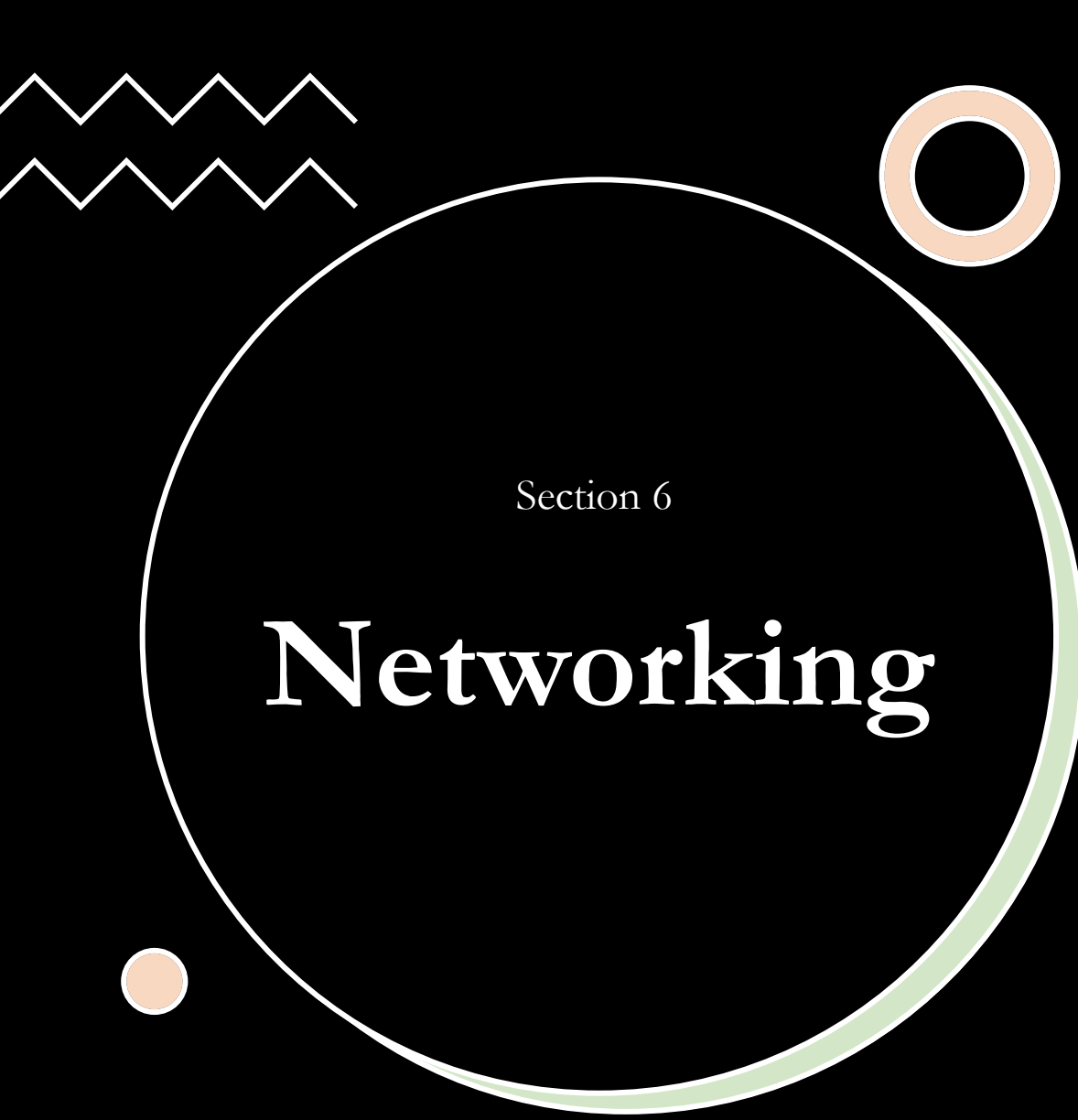
Software

- Software and types of software
- System software
- Application software
- Freeware and shareware
- Open-source software
- BIOS and Accessing
- Program and services
- Quiz and handouts



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Section 6

Networking

- How computers communicate
- IP address (Static vs. DHCP)
- TCP/IP
- Gateway
- Subnet mask
- Computer MAC address
- OSI layer
- OSI vs. TCP/IP
- Protocols and Ports
- Types of Network Devices (Hub, Switch, Modem, Router, Access point)
- How internet works
- Quiz and handouts



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Section 7

Database

- Database introduction
- What is RDBMS?
- What is SQL?
- Top 5 RDBMS using SQL
- Quiz and handouts



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Section 8

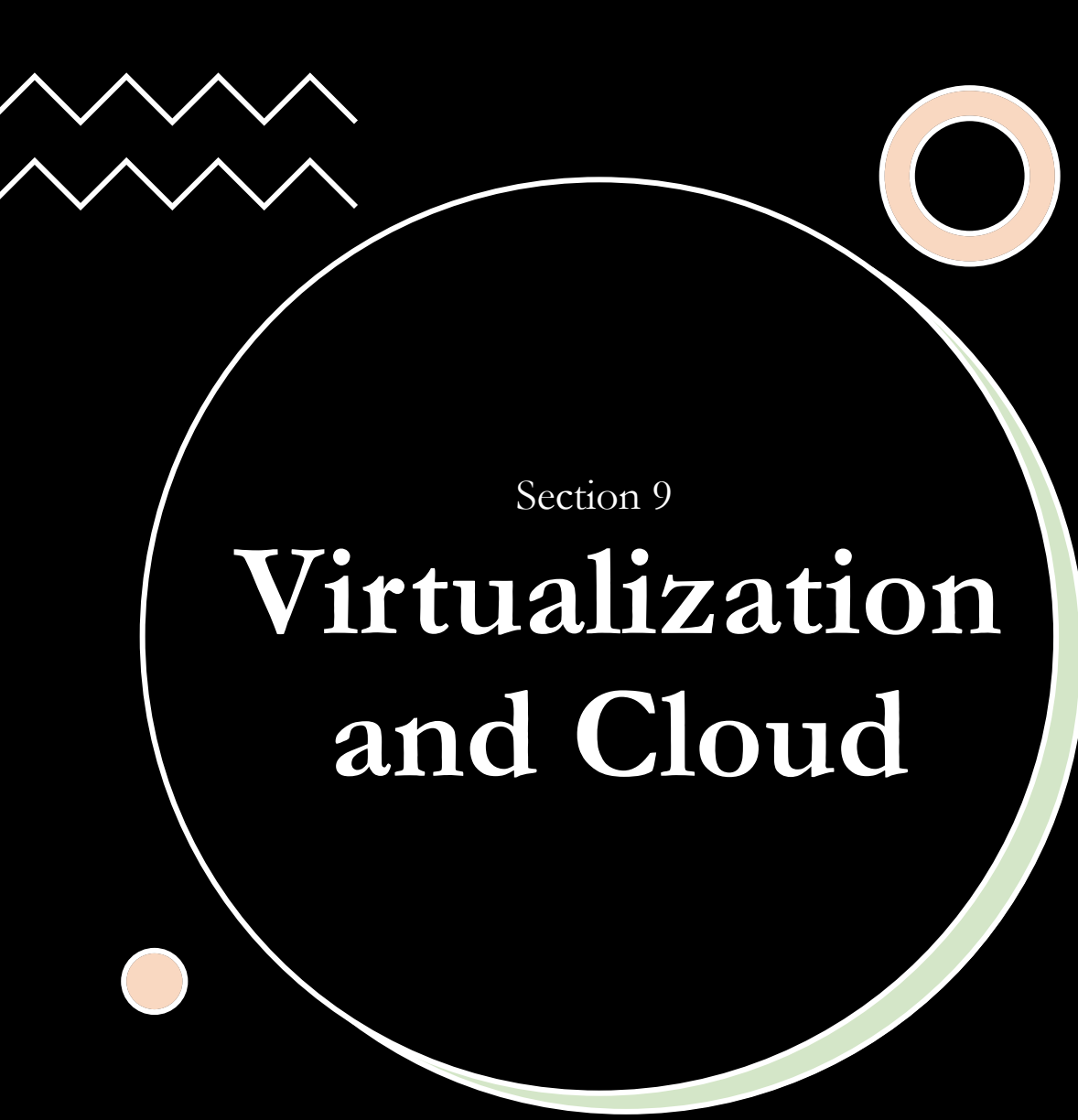
Storage

- Computer storage introduction
- How storage is calculated (KB, MB, GB etc.)
- Types of computer storage
- Difference between RAM, SWAP, Virtual Memory, Cache etc.
- Hard Disk and Solid-State drives
- RAID
- Hardware RAID vs. software RAID
- Top data storage vendors
- Quiz and handouts



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Section 9

Virtualization and Cloud

- Introduction to virtualization
- How virtualization works?
- Basic virtualization terms
- Benefits of virtualization
- Difference between virtualization and cloud
- Virtualization technology companies
- VMWare workstation player installation
- Oracle VirtualBox installation
- Setting up virtual machines (VM)
- Quiz and handouts



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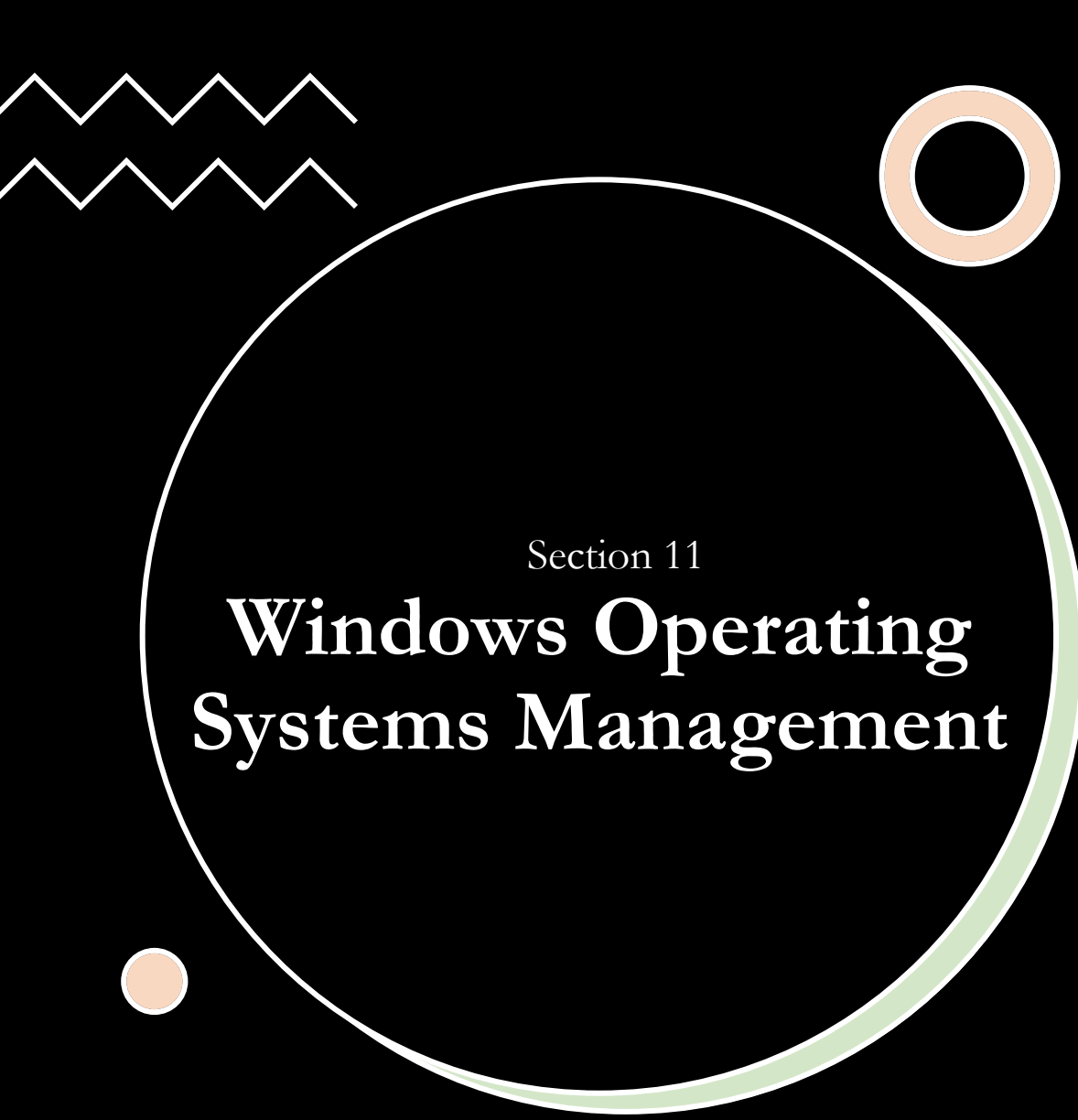


Section 10

Security

- Types of security breach
- Types of security threat
- Comparing house security with computer security
- Securing all Operating Systems
- Security implementation tools
- Physical server security
- Application and DB encryption
- Quiz and handouts





Section 11

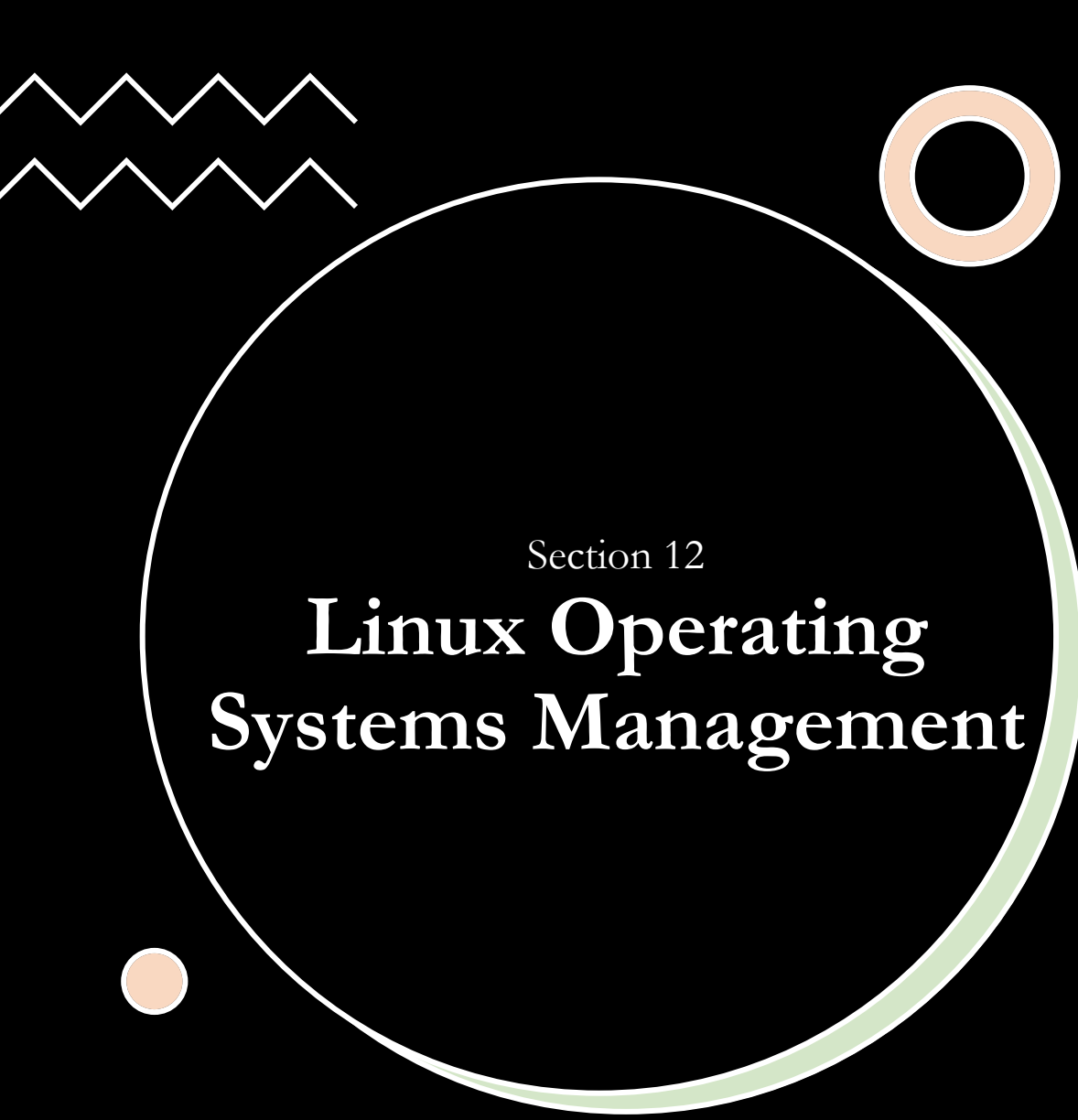
Windows Operating Systems Management

- Version of Windows OS
- Download and install windows
- Windows system access
- File system and description
- User account management
- System resource monitoring
- Windows event logs
- Server manager dashboard
- Check system hardware through device manager
- Roles and features
- Active directory and domain controller
- Quiz and handouts



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Section 12

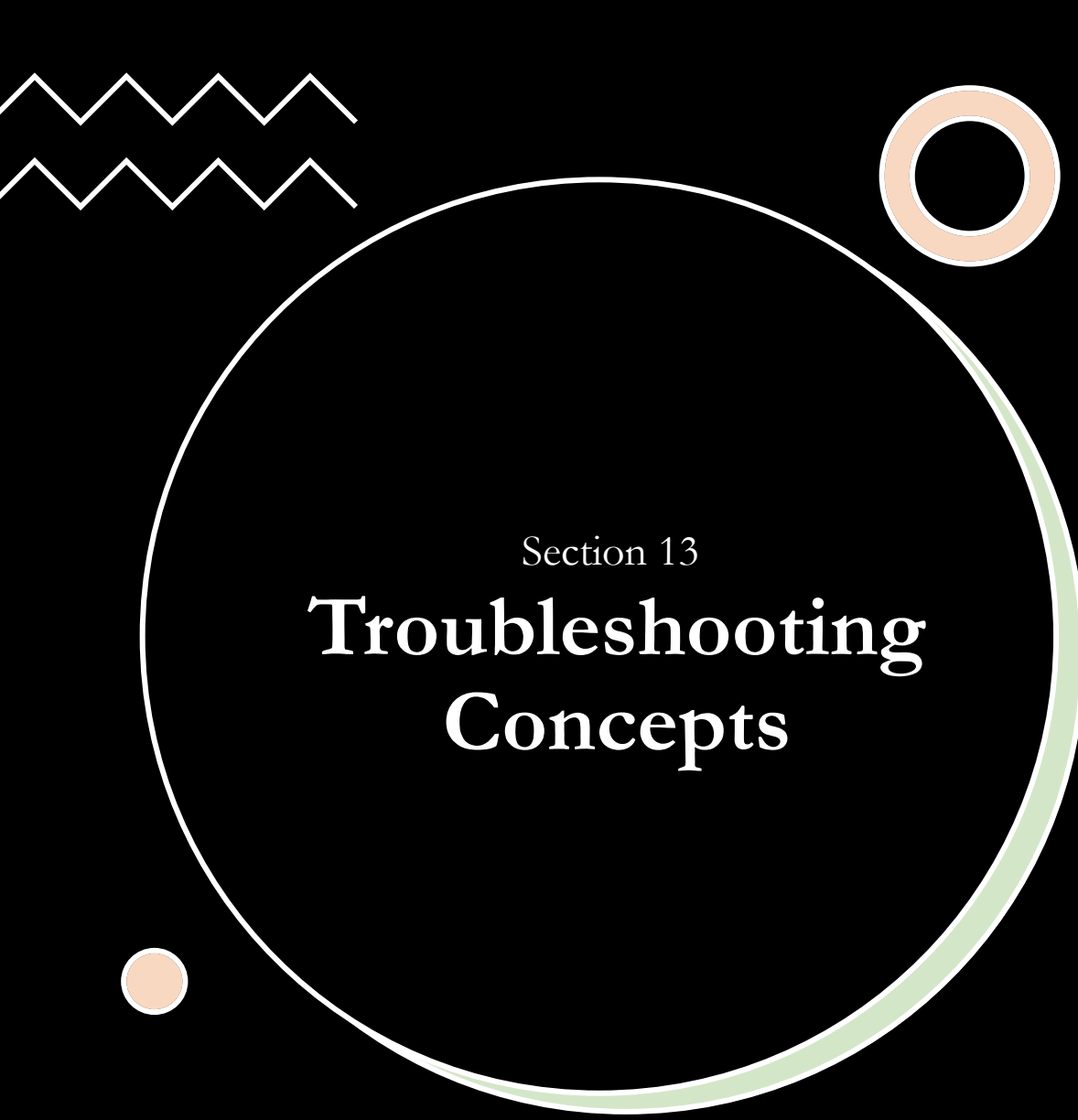
Linux Operating Systems Management

- Linux distributions
- Download and install Linux (CentOS)
- Accessing Linux
- Download and install Putty client
- Access Linux VM via Putty
- File system structure and description
- File system navigation commands
- Directory listing overview
- Creating files and directories
- System utility commands
- System monitoring commands
- System maintenance commands
- Quiz and handouts



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Section 13

Troubleshooting Concepts

- Follow policies and standards
- Documentation or ticking process
- Patience to work with user and groups
- Quiz and handouts



Section 14 (Last section)

Additional Resources