Name: Robert Lefrandt	Grading Quarter: 2	Week Beginning: 10 10/23/2023
School Year: 2023-24	Subject: Software & App Design	

| | Notes:
10/23/2023

Operators and Expressions in Python - Real Python

A sequence of operands and operators, like a + b - 5, is called an **expression**. **Python** supports many operators for combining data objects into **expressions**.

Compare other LMS's

Harvard CS50x

MS Visual Code Studio AI assistants

Prompt Engineering

AFE CS AP Principles | *****Hold Software & App Design Team/Club Meeting this week to discuss purchases:**
Certifications- Web, Python, Arduino- C/C++
FBLA Skills Competitions
Physical computing-programming
Python IDE Cloud/online
PyCharm, Thonny _ Talk w/BRHS IT/Helpdeskk about install/Image
SunFounder Raspberry Pi Pico W Ultimate Starter Kit with Online Tutorials, 450+ Items, 117 Projects, MicroPython, Piper Make and C/C++ (Compatible with Arduino IDE)
Objective:
Students learn how to program
Identify if statements in code
Identify the condition within an if statement
Describe how an if statement makes a decision
Identify which comparison operator is most appropriate in a given context
Describe where comparison operators fall in the order of operations for Python
Differentiate between the = and == operators and describe the function of each
Explain how white space is used to delineate the beginning and end of if statement sections
Lesson Overview:

Students will login to their Smart Tech Coders CS 201 Python accounts. Students will work though the Learning Management System (LMS) curriculum to learn Python.

Unit 2: Decisions
Lesson 2.1: Conditionals (if)

2.1 Unit 2 Introduction

2.1 if Statements

2.1 Same Name

2.1 True or False

Lesson 2.2 - Conditionals (elif and else)
write a conditional that considers multiple cases.
If finish TechSmartCoders – Python Daily Lessons and Activity library, then go to: FreeCodeCamp and work on Front/Back End Web Stack and Certifications | **Academic Standards:** AZ_CTE SoftwareAppDesign TechStandards

STANDARD 1.0 APPLY PROBLEM-SOLVING AND CRITICAL THINKING SKILLS

STANDARD 4.0 UTILIZE PRIMITIVE DATA TYPES AND STRINGS IN WRITING PROGRAMS

STANDARD 5.0 PERFORM BASIC COMPUTER MATHEMATICS IN INFORMATION TECHNOLOGY

STANDARD 6.0 UTILIZE CONDITIONAL STRUCTURES IN WRITING PROGRAMS 6.1

Use the correct syntax for decision statements (e.g., if/else, if, and switch case)
6.2

Compare values using relational operators (e.g., =, >, <, >=, <=, and not equal)
6.3

Evaluate Boolean expressions (e.g., AND, OR, NOT, NOR, and XOR)
6.4

Use the correct nesting for decision structures
STANDARD 12.0 DEVELOP A PROGRAM

STANDARD 13.0 TEST AND DEBUG TO VERIFY PROGRAM OPERATION

STANDARD 14.0 UTILIZE AND CREATE COMMUNITY RESOURCES
14.1 Use standard |
| Monday | | | |

			library functions

Tuesday	Notes: 10/124/2023 Operators and Expressions in Python - Real Python A sequence of operands and operators, like a + b - 5, is called an **expression**. **Python** supports many operators for combining data objects into **expressions**. Compare other LMS's Harvard CS50x MS Visual Code Studio AI assistants Prompt Engineering AFE CS AP Principles	*****Hold Software & App Design Team/Club Meeting this week to discuss purchases:** • Certifications- Web, Python, Arduino- C/C++ • FBLA Skills Competitions • Physical computing-programming • Python IDE Cloud/online • PyCharm, Thonny _ Talk w/BRHS IT/Helpdeskk about install/Image • SunFounder Raspberry Pi Pico W Ultimate Starter Kit with Online Tutorials, 450+ Items, 117 Projects, MicroPython, Piper Make and C/C++ (Compatible with Arduino IDE) Objective: Students learn how to program **Decisions 2.1: Conditionals (if)** • Identify if statements in code • Identify the condition within an if statement • Describe how an if statement makes a decision • Identify which comparison operator is most appropriate in a given context • Describe where comparison operators fall in the order of operations for Python • Differentiate between the = and == operators and describe the function of each • Explain how white space is used to delineate the beginning and end of if statement sections • write a conditional that considers multiple cases. Lesson Overview: Students will login to their Smart Tech Coders CS 201 Python accounts. Students will work though the Learning Management System (LMS) curriculum to learn Python. **O-Unit 2: Decisions** **Lesson 2.1: Conditionals (if)** 2.1 Unit 2 Introduction 2.1 if Statements 2.1 Same Name 2.1 True or False **Lesson 2.2 - Conditionals (elif and else)** • write a conditional that considers multiple cases. ***If finish TechSmartCoders – Python Daily Lessons and Activity library, then go to: FreeCodeCamp and work on Front/Back End Web Stack and Certifications***	**Academic Standards:** AZ_CTE SoftwareAppDesign TechStandards **STANDARD 1.0** APPLY PROBLEM-SOLVING AND CRITICAL THINKING SKILLS **STANDARD 4.0** UTILIZE PRIMITIVE DATA TYPES AND STRINGS IN WRITING PROGRAMS **STANDARD 5.0** PERFORM BASIC COMPUTER MATHEMATICS IN INFORMATION TECHNOLOGY **STANDARD 6.0** UTILIZE CONDITIONAL STRUCTURES IN WRITING PROGRAMS 6.1 Use the correct syntax for decision statements (e.g., if/else, if, and switch case) 6.2 Compare values using relational operators (e.g., =, >, <, >=, <=, and not equal) 6.3 Evaluate Boolean expressions (e.g., AND, OR, NOT, NOR, and XOR) 6.4 Use the correct nesting for decision structures **STANDARD 12.0** DEVELOP A PROGRAM **STANDARD 13.0** TEST AND DEBUG TO VERIFY PROGRAM OPERATION **STANDARD 14.0** UTILIZE AND CREATE COMMUNITY RESOURCES 14.1 Use standard

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Wednesday	Notes: 10/25/2023 Operators and Expressions in Python - Real Python A sequence of operands and operators, like a + b - 5, is called an **expression**. **Python** supports many operators for combining data objects into **expressions**. Compare other LMS's Harvard CS50x MS Visual Code Studio AI assistants Prompt Engineering AFE CS AP Principles	*****Hold Software & App Design Team/Club Meeting this week to discuss purchases:** - Certifications- Web, Python, Arduino- C/C++ - FBLA Skills Competitions - Physical computing-programming - Python IDE Cloud/online - PyCharm, Thonny _ Talk w/BRHS IT/Helpdeskk about install/Image - SunFounder Raspberry Pi Pico W Ultimate Starter Kit with Online Tutorials, 450+ Items, 117 Projects, MicroPython, Piper Make and C/C++ (Compatible with Arduino IDE) Objective: Students learn how to program - Identify if statements in code - Identify the condition within an if statement - Describe how an if statement makes a decision - Identify which comparison operator is most appropriate in a given context - Describe where comparison operators fall in the order of operations for Python - Differentiate between the = and == operators and describe the function of each - Explain how white space is used to delineate the beginning and end of if statement sections Lesson Overview: Students will login to their Smart Tech Coders CS 201 Python accounts. Students will work though the Learning Management System (LMS) curriculum to learn Python. **Unit 2: Decisions** **Lesson 2.1: Conditionals (if)** 2.1 Unit 2 Introduction 2.1 if Statements 2.1 Same Name 2.1 True or False ## Lesson 2.2 - Conditionals (elif and else) - write a conditional that considers multiple cases. *****If finish TechSmartCoders – Python Daily Lessons and Activity library, then go to: FreeCodeCamp and work on Front/Back End Web Stack and Certifications*****	**Academic Standards:** AZ_CTE SoftwareAppDesign TechStandards **STANDARD 1.0** APPLY PROBLEM-SOLVING AND CRITICAL THINKING SKILLS **STANDARD 4.0** UTILIZE PRIMITIVE DATA TYPES AND STRINGS IN WRITING PROGRAMS **STANDARD 5.0** PERFORM BASIC COMPUTER MATHEMATICS IN INFORMATION TECHNOLOGY **STANDARD 6.0** UTILIZE CONDITIONAL STRUCTURES IN WRITING PROGRAMS 6.1 Use the correct syntax for decision statements (e.g., if/else, if, and switch case) 6.2 Compare values using relational operators (e.g., =, >, <, >=, <=, and not equal) 6.3 Evaluate Boolean expressions (e.g., AND, OR, NOT, NOR, and XOR) 6.4 Use the correct nesting for decision structures **STANDARD 12.0** DEVELOP A PROGRAM **STANDARD 13.0** TEST AND DEBUG TO VERIFY PROGRAM OPERATION **STANDARD 14.0** UTILIZE AND CREATE COMMUNITY RESOURCES 14.1 Use standard

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Thursday	Notes: 10/26/2023 Operators and Expressions in Python - Real Python A sequence of operands and operators, like a + b - 5, is called an **expression**. **Python** supports many operators for combining data objects into **expressions**. Compare other LMS's Harvard CS50x MS Visual Code Studio AI assistants Prompt Engineering AFE CS AP Principles	*****Hold Software & App Design Team/Club Meeting this week to discuss purchases:** • Certifications- Web, Python, Arduino- C/C++ • FBLA Skills Competitions • Physical computing-programming • Python IDE Cloud/online • PyCharm, Thonny _ Talk w/BRHS IT/Helpdeskk about install/Image • SunFounder Raspberry Pi Pico W Ultimate Starter Kit with Online Tutorials, 450+ Items, 117 Projects, MicroPython, Piper Make and C/C++ (Compatible with Arduino IDE) Objective: Students learn how to program • Identify if statements in code • Identify the condition within an if statement • Describe how an if statement makes a decision • Identify which comparison operator is most appropriate in a given context • Describe where comparison operators fall in the order of operations for Python • Differentiate between the = and == operators and describe the function of each • Explain how white space is used to delineate the beginning and end of if statement sections Lesson Overview: Students will login to their Smart Tech Coders CS 201 Python accounts. Students will work though the Learning Management System (LMS) curriculum to learn Python. **Unit 2: Decisions** **Lesson 2.1: Conditionals (if)** 2.1 Unit 2 Introduction 2.1 if Statements 2.1 Same Name 2.1 True or False **Lesson 2.2 - Conditionals (elif and else)** • write a conditional that considers multiple cases. ***If finish TechSmartCoders – Python Daily Lessons and Activity library, then go to: FreeCodeCamp and work on Front/Back End Web Stack and Certifications***	**Academic Standards:** AZ_CTE SoftwareAppDesign TechStandards **STANDARD 1.0** APPLY PROBLEM-SOLVING AND CRITICAL THINKING SKILLS **STANDARD 4.0** UTILIZE PRIMITIVE DATA TYPES AND STRINGS IN WRITING PROGRAMS **STANDARD 5.0** PERFORM BASIC COMPUTER MATHEMATICS IN INFORMATION TECHNOLOGY **STANDARD 6.0** UTILIZE CONDITIONAL STRUCTURES IN WRITING PROGRAMS 6.1 Use the correct syntax for decision statements (e.g., if/else, if, and switch case) 6.2 Compare values using relational operators (e.g., =, >, <, >=, <=, and not equal) 6.3 Evaluate Boolean expressions (e.g., AND, OR, NOT, NOR, and XOR) 6.4 Use the correct nesting for decision structures **STANDARD 12.0** DEVELOP A PROGRAM **STANDARD 13.0** TEST AND DEBUG TO VERIFY PROGRAM OPERATION **STANDARD 14.0** UTILIZE AND CREATE COMMUNITY RESOURCES 14.1 Use standard

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