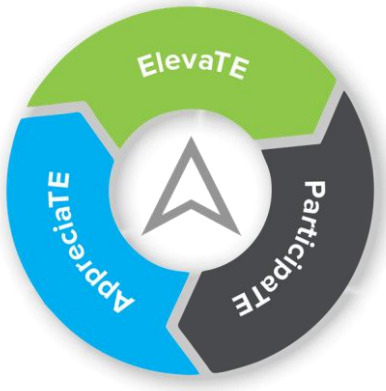
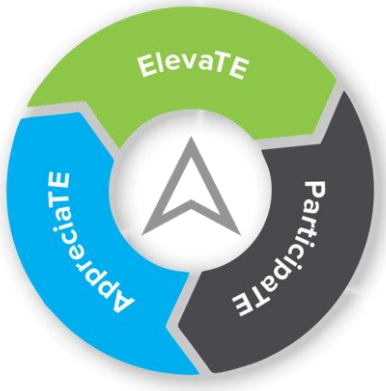
DAY 1 OBJECTIVES



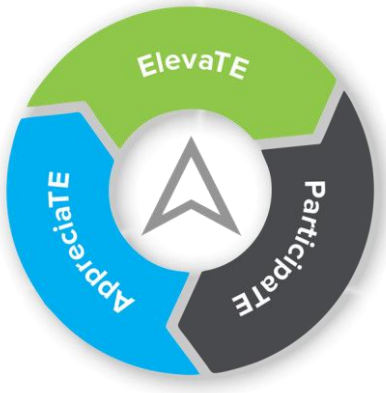
- ❑ Configure Laptops
- ❑ Navigate File System
- ❑ Work with the Command Line
- ❑ Define Source Control
- ❑ Clone the Bitbucket GIT Repo
- ❑ Understand the Process to Complete Exercises
- ❑ Practice GIT Commands to Submit Exercise Work

DAY 1 OBJECTIVES



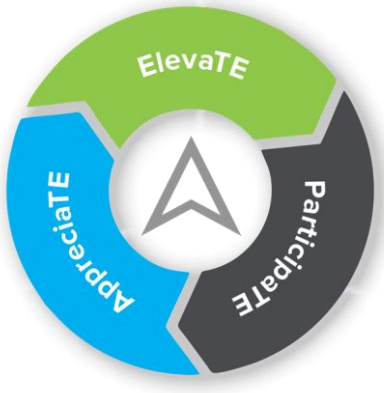
- ✓ Configure Laptops
- ✓ Navigate File System
- ✓ Work with the Command Line
- ✓ Define Source Control
- ✓ Clone the Bitbucket GIT Repo
- ✓ Understand the Process to Complete Exercises
- ✓ Practice GIT Commands to Submit Exercise Work

DAY 2 OBJECTIVES



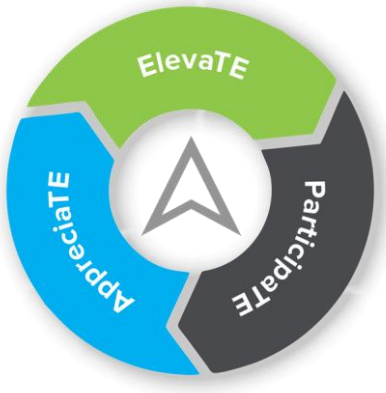
- ❑ Introduce Java
- ❑ Understand Datatype
- ❑ Define Variables
- ❑ Assign Values to Variables
- ❑ Build Expressions
- ❑ Cast Primitives

DAY 2 OBJECTIVES



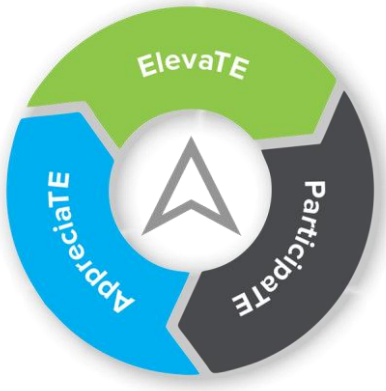
- ✓ Introduce Java
- ✓ Understand Datatype
- ✓ Define Variables
- ✓ Assign Values to Variables
- ✓ Build Expressions
- ✓ Cast Primitives

DAY 3 OBJECTIVES



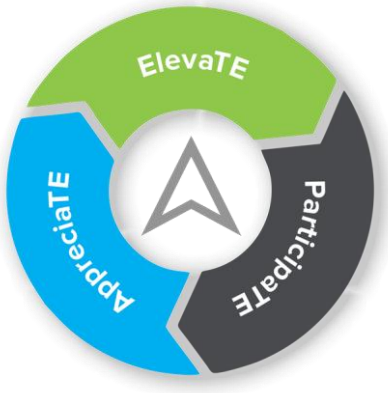
- ❑ Define Statements
- ❑ Create Code Blocks
- ❑ Apply Boolean Logic
- ❑ Describe Value of Methods
- ❑ Execute Code Conditionally

DAY 3 OBJECTIVES



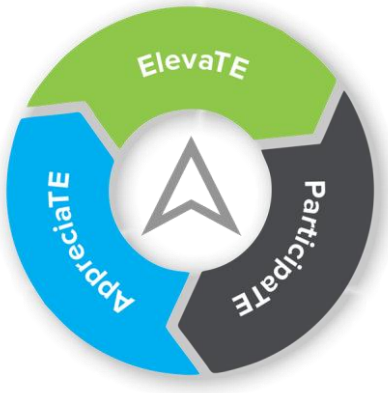
- ✓ Define Statements
- ✓ Create Code Blocks
- ✓ Apply Boolean Logic
- ✓ Describe Value of Methods
- ✓ Execute Code Conditionally

DAY 4 OBJECTIVES



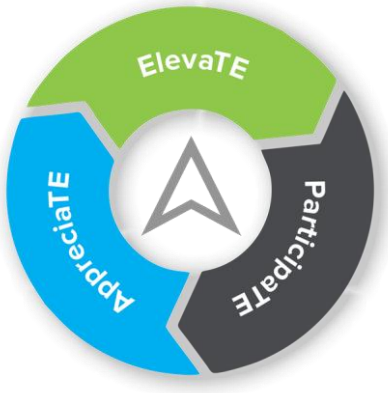
- ❑ Create Arrays
- ❑ Discuss Looping Constructs
- ❑ Loop Through Arrays
- ❑ Access Array Elements
- ❑ Understand the Memory Model

DAY 4 OBJECTIVES



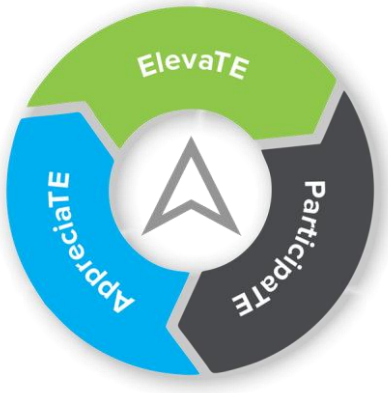
- ✓ Create Arrays
- ✓ Discuss Looping Constructs
- ✓ Loop Through Arrays
- ✓ Access Array Elements
- ✓ Understand the Memory Model

DAY 5 OBJECTIVES



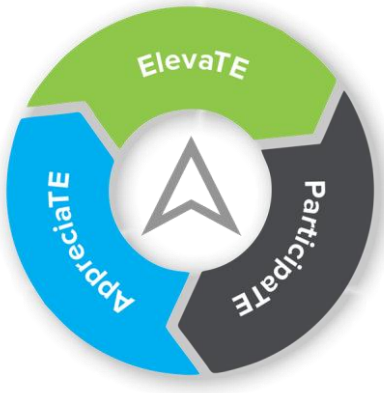
- ❑ Discuss Standard In and Out
- ❑ Define Primitive String Parsing
- ❑ Explore String Class Methods
- ❑ Create a Console Application

DAY 5 OBJECTIVES



- ✓ Discuss Standard In and Out
- ✓ Define Primitive String Parsing
- ✓ Explore String Class Methods
- ✓ Create a Console Application

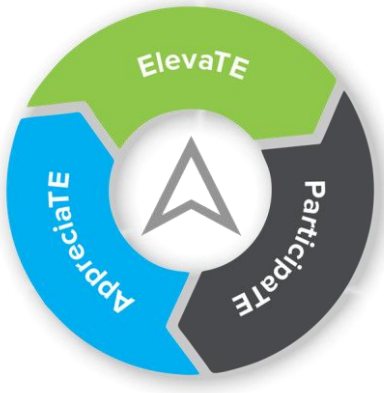
DAY 6 OBJECTIVES



- ❑ What is a class?
- ❑ What is an object
- ❑ Declare, instantiate, and initialize an object
- ❑ Value versus reference types
- ❑ == versus equals
- ❑ Play more with the String class

| length() | Returns how many characters are in the string
| substring() | Returns a certain part of the string
| indexOf() | Returns the index of a search string
| charAt() | Returns the `char` from a specified index
| contains() | Returns `true` of the string contains the search string
| And many more…

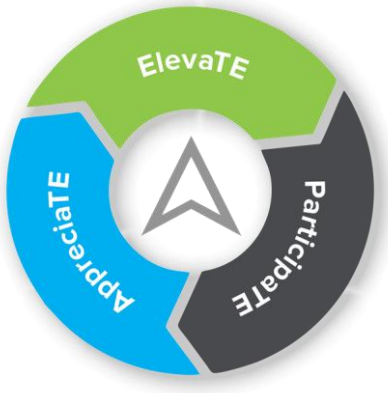
DAY 6 OBJECTIVES



- ✓ What is a class?
- ✓ What is an object
- ✓ Declare, instantiate, and initialize an object
- ✓ Value versus reference types
- ✓ == versus equals
- ✓ Play more with the String class

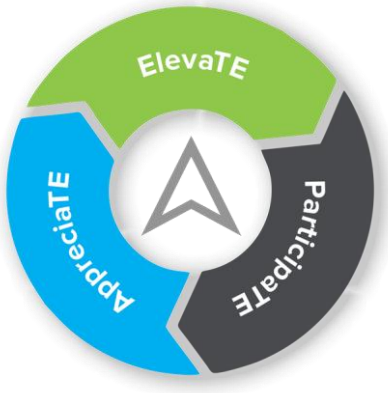
| length() | Returns how many characters are in the string
| substring() | Returns a certain part of the string
| indexOf() | Returns the index of a search string
| charAt() | Returns the `char` from a specified index
| contains() | Returns `true` of the string contains the search string
| And many more…

DAY 7 OBJECTIVES



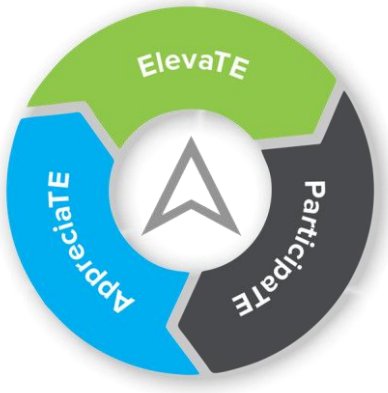
- ❑ Define Collections
- ❑ Compare to array
- ❑ Create ArrayList
- ❑ Add elements to an ArrayList
- ❑ Iterate through an ArrayList
- ❑ Introduce concept of Stack versus Queue

DAY 7 OBJECTIVES



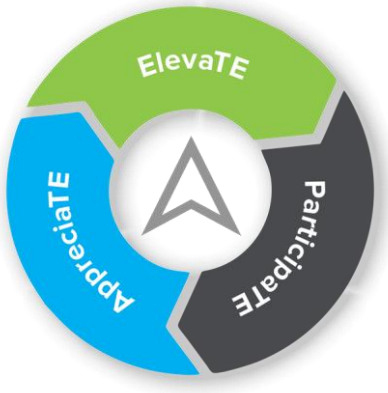
- ✓ Define Collections
- ✓ Compare to array
- ✓ Create ArrayList
- ✓ Add elements to an ArrayList
- ✓ Iterate through an ArrayList
- ✓ Introduce concept of Stack versus Queue

DAY 8 OBJECTIVES



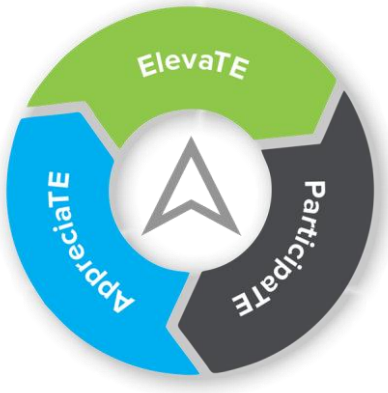
- ❑ Define Need to Optimize Data Structures
- ❑ Introduce Big O Notation
- ❑ Work with Map
- ❑ Discuss Set

DAY 8 OBJECTIVES



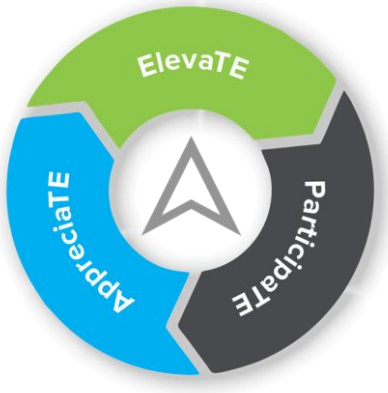
- ✓ Define Need to Optimize Data Structures
- ✓ Introduce Big O Notation
- ✓ Work with Map
- ✓ Discuss Set

DAY 9 OBJECTIVES



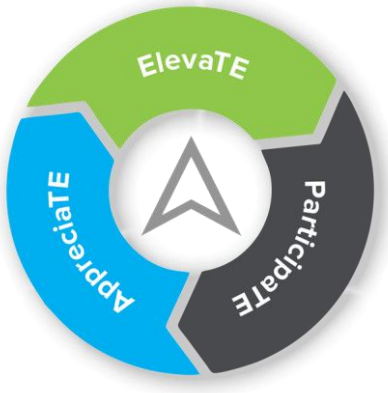
- ❑ Build Class
- ❑ Define Fields
- ❑ Create Constructors
- ❑ Define Methods
- ❑ Understand Properties (getXxx & setXxx)
- ❑ Instantiate Objects
- ❑ Explain Method Overloading

DAY 9 OBJECTIVES



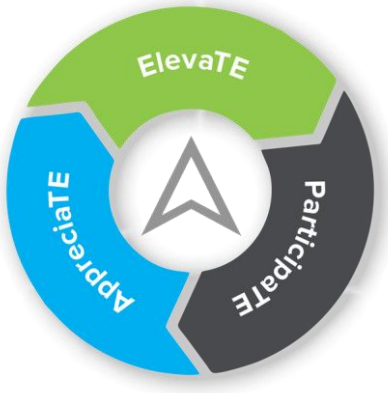
- ✓ Build Class
- ✓ Define Fields
- ✓ Create Constructors
- ✓ Define Methods
- ✓ Understand Properties (getXxx & setXxx)
- ✓ Instantiate Objects
- ✓ Explain Method Overloading

DAY 10 OBJECTIVES



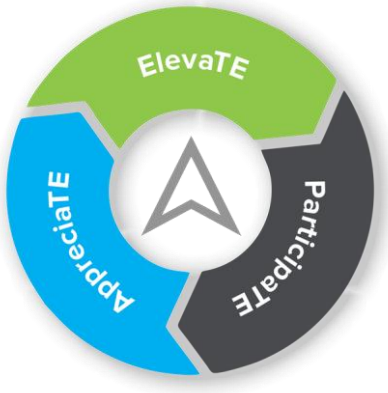
- ❑ Discuss Encapsulation
- ❑ Explain Loosely Coupled
- ❑ Define Constant Field Variables
- ❑ Create Static Fields and Methods

DAY 10 OBJECTIVES



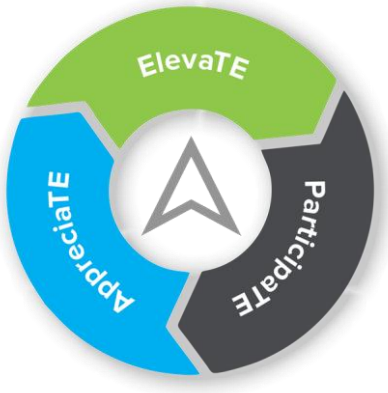
- ✓ Discuss Encapsulation
- ✓ Explain Loosely Coupled
- ✓ Define Constant Field Variables
- ✓ Create Static Fields and Methods

DAY 11 OBJECTIVES



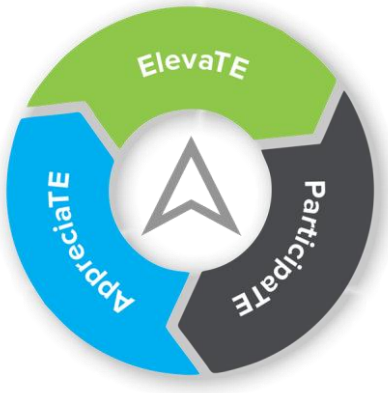
- ❑ Explore Inheritance
- ❑ Implement Inheritance
- ❑ Identify Sub and Super Classes
- ❑ Call Super Class Methods and Constructors
- ❑ Define Method Overriding

DAY 11 OBJECTIVES



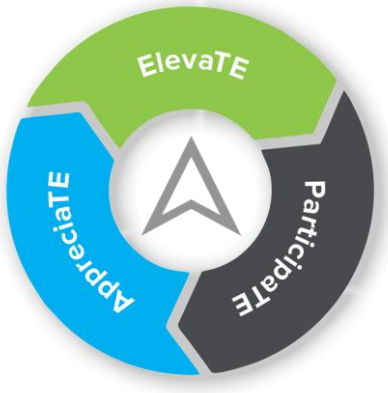
- ✓ Explore Inheritance
- ✓ Implement Inheritance
- ✓ Identify Sub and Super Classes
- ✓ Call Super Class Methods and Constructors
- ✓ Define Method Overriding

DAY 12 OBJECTIVES



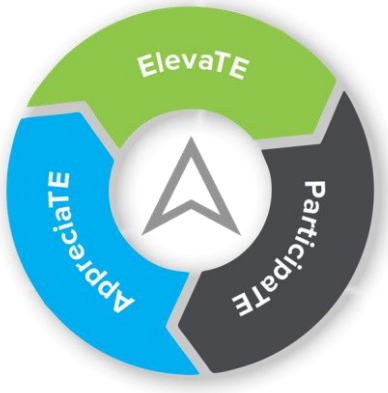
- ❑ Explore the Need for Abstract Class
- ❑ Create an Abstract Class
- ❑ Discover the Use of Interfaces
- ❑ Implement Interfaces
- ❑ Define final Keyword
- ❑ Discuss the Concept of Design Patterns

DAY 12 OBJECTIVES



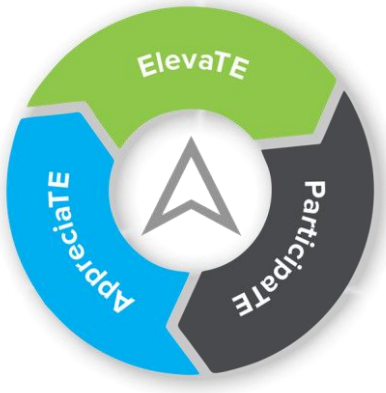
- ✓ Explore the Need for Abstract Class
- ✓ Create an Abstract Class
- ✓ Discover the Use of Interfaces
- ✓ Implement Interfaces
- ✓ Define final Keyword
- ✓ Discuss the Concept of Design Patterns

DAY 14 OBJECTIVES



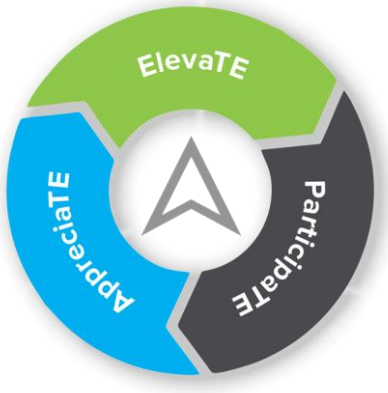
- ❑ Identify Types of Testing
- ❑ Create Unit Test Cases
- ❑ Use assert Methods
- ❑ Recognize Test Boundaries
- ❑ Discuss Manual versus Automated Tests

DAY 14 OBJECTIVES



- ✓ Identify Types of Testing
- ✓ Create Unit Test Cases
- ✓ Use assert Methods
- ✓ Recognize Test Boundaries
- ✓ Discuss Manual versus Automated Tests

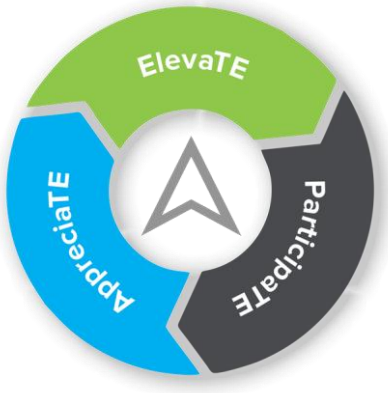
DAY 16 OBJECTIVES



- ❑ Define Test Driven Development (TDD)
- ❑ Compare TDD to Traditional Development
- ❑ What Does It Mean to Refactor
- ❑ Kata For TDD

1. Write failing test
2. Make test pass with minimum code
3. Refactor

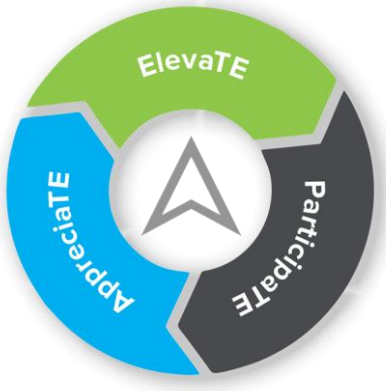
DAY 16 OBJECTIVES



- ✓ Define Test Driven Development (TDD)
- ✓ Compare TDD to Traditional Development
- ✓ What Does It Mean to Refactor
- ✓ Kata For TDD

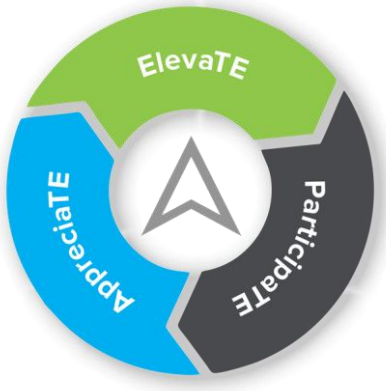
1. Write failing test
2. Make test pass with minimum code
3. Refactor

DAY 17 OBJECTIVES



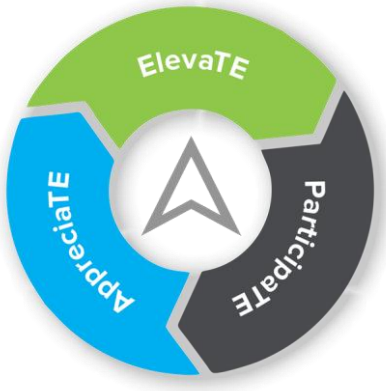
- ❑ Define Exception Handling
- ❑ List the Five Exception Handling Keywords
- ❑ Write Exception Handling Code
- ❑ Discuss Checked versus Unchecked Exceptions
- ❑ Create an Exception Class
- ❑ Explore the java.io Package
- ❑ Read a Text File

DAY 17 OBJECTIVES



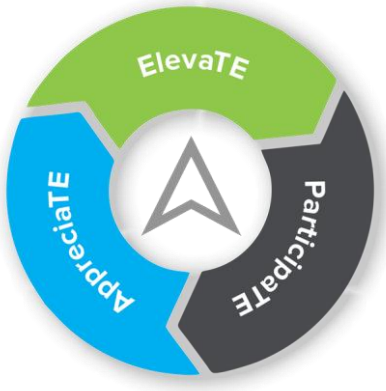
- ✓ Define Exception Handling
- ✓ List the Five Exception Handling Keywords
- ✓ Write Exception Handling Code
- ✓ Discuss Checked versus Unchecked Exceptions
- ✓ Create an Exception Class
- ✓ Explore the java.io Package
- ✓ Read a Text File

DAY 18 OBJECTIVES



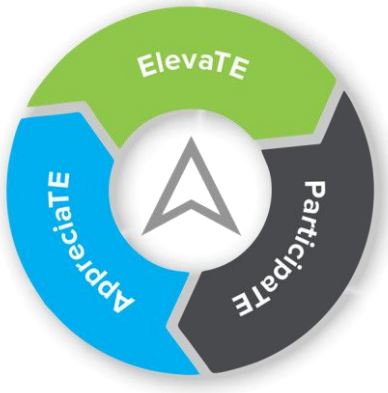
- ❑ Explore java.io.File Class
- ❑ Discuss Concept of Buffering
- ❑ Write to a Text File

DAY 18 OBJECTIVES



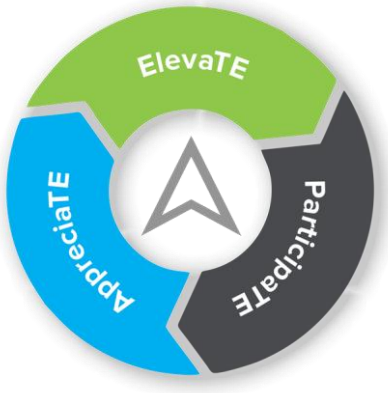
- ✓ Explore java.io.File Class
- ✓ Discuss Concept of Buffering
- ✓ Write to a Text File

DAY 21 OBJECTIVES



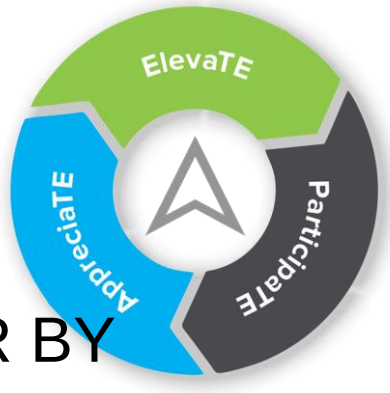
- ❑ Explore Concept of a Relational Database
- ❑ What is SQL?
- ❑ Create SQL SELECT Statement with WHERE
- ❑ Build SQL with Arithemetic Expressions
- ❑ Discuss SQL NULL Values

DAY 21 OBJECTIVES



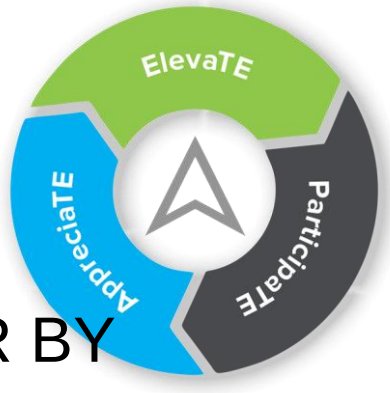
- ✓ Explore Concept of a Relational Database
- ✓ What is SQL?
- ✓ Create SQL SELECT Statement with WHERE
- ✓ Build SQL with Arithemetic Expressions
- ✓ Discuss SQL NULL Values

DAY 22 OBJECTIVES



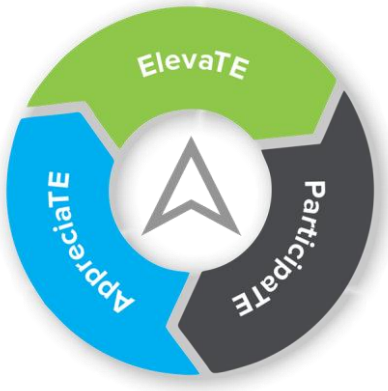
- ❑ Order the Results of our Queries – ORDER BY
- ❑ Filter to Limit the Results of our Queries
- ❑ Create String Operations
- ❑ Build Aggregate Functions
- ❑ Group our Query Results
- ❑ Execute Subqueries

DAY 22 OBJECTIVES



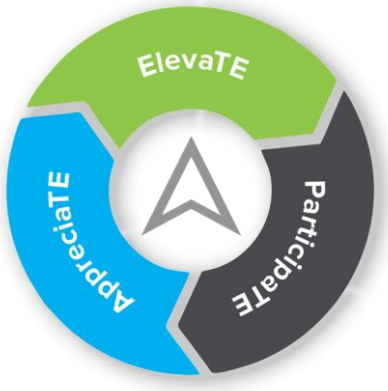
- ✓ Order the Results of our Queries – ORDER BY
- ✓ Filter to Limit the Results of our Queries
- ✓ Create String Operations
- ✓ Build Aggregate Functions
- ✓ Group our Query Results
- ✓ Execute Subqueries

DAY 23 OBJECTIVES



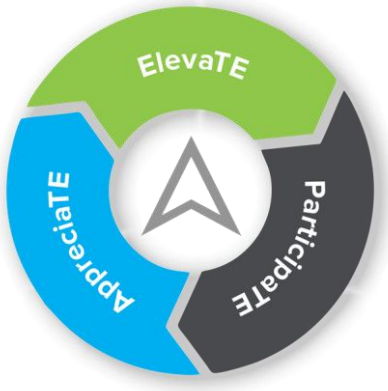
- ❑ Discuss Types of Keys
- ❑ Explore Cardinality
- ❑ Create SQL Joins
- ❑ Understand Unions

DAY 23 OBJECTIVES



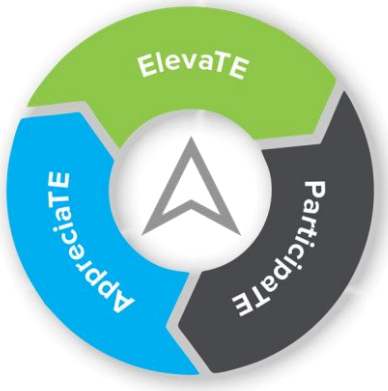
- ✓ Discuss Types of Keys
- ✓ Explore Cardinality
- ✓ Create SQL Joins
- ✓ Understand Unions

DAY 24 OBJECTIVES



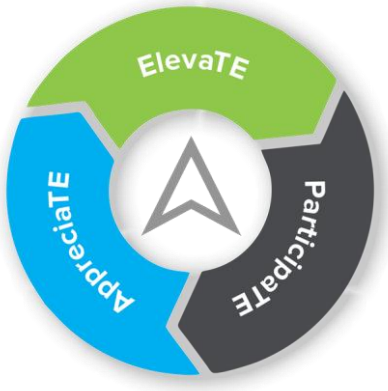
- ❑ Insert Rows into Tables
- ❑ Update Rows in Tables
- ❑ Delete Rows from Tables
- ❑ Manage Constraints
- ❑ Discuss Referential Integrity
- ❑ Explore Transactions

DAY 24 OBJECTIVES



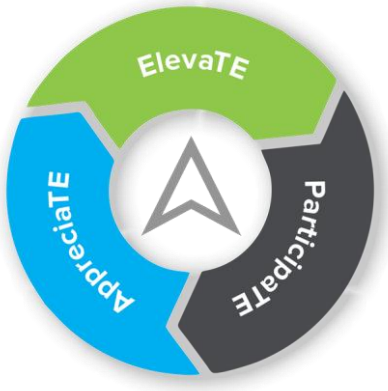
- ✓ Insert Rows into Tables
- ✓ Update Rows in Tables
- ✓ Delete Rows from Tables
- ✓ Manage Constraints
- ✓ Discuss Referential Integrity
- ✓ Explore Transactions

DAY 25 OBJECTIVES



- ❑ Discuss Database Design
- ❑ Introduce the Data Definition Language
- ❑ Explore the Control Language

DAY 25 OBJECTIVES



- ✓ Discuss Database Design
- ✓ Introduce the Data Definition Language
- ✓ Explore the Control Language