In-Class Activity: Creating AWS S3 Buckets with Terraform

Task Requirements:

1. **Create 4 Private S3 Buckets**:
    - Use Terraform to create 4 **private** S3 buckets in AWS.
    - Ensure that **no buckets have public access** enabled.
2. **Dynamic Configuration**:
    - Avoid any hardcoding in your Terraform files.
    - All configuration values (bucket names, region, student id, etc.) should come from tfvars file to maintain flexibility.
3. **Looped Resource Plan**:
    - Use **looping constructs** (e.g., "for_each" or "count") to create the S3 buckets in a single resource block.
      Note: There should not be individual resource blocks for each bucket.
4. **Required Files**:
    - Organize your configuration into the following **four files**:
        - **main.tf:** Define the S3 bucket resources.
        - **provider.tf:** Set up the AWS provider and configure authentication.
        - **variables.tf:** Define input variables for your configuration.
        - **vars.tfvars:** Specify values for the variables.
5. **Provider Configuration**:
    - In **"provider.tf"**, configure **AWS authentication** using AWS Secret key and AWS Access key and AWS Authentication Token.
    - **Set the AWS region** to us-east-1.
6. **Terraform State Management**:
    - **Store the Terraform state file locally** on your laptop instead of using a remote backend.

Bonus Challenge:

- Enable **versioning** on all buckets by updating the main.tf configuration.