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Batch: 1154
Homework: ExceptionHandling

Checked Exception:

```
package exceptions;

//Custom checked exception for underage voters
class UnderageException extends Exception {

	public UnderageException(String message) {
		super(message);
	}
}

//Class representing a voter
class Voter {
	private int age;
	public Voter(int age) {
		this.age = age;
	}
// Method to check eligibility and vote
	public void vote() throws UnderageException {

		if (age < 18) {
			throw new UnderageException("Voter is underage and
cannot vote.");
		} else {
			System.out.println("Voter has cast the vote.");
		}
	}
}
```

```java
//Main program
public class Checked {

    public static void main(String[] args) {
        // Creating a voter with age 16
        Voter underageVoter = new Voter(16);

        try {
            // Attempting to vote with an underage voter
            underageVoter.vote();
        } catch (UnderageException e) {
            System.out.println("Caught UnderageException: " +
e.getMessage());
        }finally {
            System.out.println("Next voter...");
        }

        // Creating a voter with age 20
        Voter eligibleVoter = new Voter(20);

        try {
            // Attempting to vote with an eligible voter
            eligibleVoter.vote();
        } catch (UnderageException e) {
            // This block will not be executed for eligible voters
            System.out.println("Caught UnderageException: " +
e.getMessage());
        }finally {
            System.out.println("Next voter...");
        }
    }
}
```

UnChecked Exception:

```
package exceptions;

//Custom unchecked exception for invalid input
class InvalidInputException extends RuntimeException {

    public InvalidInputException(String message) {
        super(message);
    }
}

//Simple calculator class
class Calculator {

    // Method to perform division
    public static double divide(int numerator, int denominator) {
        if (denominator == 0) {
            throw new InvalidInputException("Cannot divide by
zero.");
        }
        return (double) numerator / denominator;
    }
}

//Main program
public class UnChecked {

    public static void main(String[] args) {

        int numerator = 10;
        int denominator = 0;
```

```
        try {
            // Attempting to perform division with an invalid
denominator
            double result = Calculator.divide(numerator,
denominator);
            System.out.println("Result: " + result);
        } catch (InvalidInputException e) {
            System.out.println("Caught InvalidInputException: " +
e.getMessage());
        }

        denominator = 5;

        try {
            // Attempting to perform division with an invalid
denominator
            double result = Calculator.divide(numerator,
denominator);
            System.out.println("Result: " + result);
        } catch (InvalidInputException e) {
            System.out.println("Caught InvalidInputException: " +
e.getMessage());
        }
    }
}
```