CS 261 Lab Codes

Qsn 1:

```cpp
#include <iostream>
#include <string>

using namespace std;

class Person {
private:
    string name;
    int age;

public:
    Person(string n, int a) : name(n), age(a) {}

    bool compareAge(const Person& other) {
        return this->age < other.age;
    }

    string getName() const {
        return name;
    }

    int getAge() const {
        return age;
    }
};

int main() {
    Person person1("Shreyas", 42);
    Person person2("Yuvraj", 69);

    if (person1.compareAge(person2)) {
        cout << person1.getName() << " is younger than " <<
person2.getName() << "." << endl;
```

```
    } else {
        cout << person1.getName() << " is older than or same as " <<
person2.getName() << "." << endl;
    }

    return 0;
}
```

Qsn 2:

```
#include <iostream>

using namespace std;

class Rectangle {
private:
    int length;
    int breath;

public:
    Rectangle(int l, int b) : length(l), breath(b) {}

    int calculateArea() {
        return this->length * this->breath;
    }
};

int main() {
    Rectangle myRectangle(6, 9);

    int area = myRectangle.calculateArea();
    cout << "The area of the rectangle is: " << area << endl;

    return 0;
}Qsn 2:
```

Qsn 3:

```
#include <iostream>
```

```cpp
#include <string>

using namespace std;

class Book {
private:
    string title;
    string author;

public:
    Book(const string& _title, const string& _author) : title(_title),
author(_author) {}

    string getTitle() const {
        return title;
    }

    string getAuthor() const {
        return author;
    }
};

int main() {
    Book books[5] = {
        Book("Book 1", "Author 1"),
        Book("Book 2", "Author 2"),
        Book("Book 3", "Author 3"),
        Book("Book 4", "Author 4"),
        Book("Book 5", "Author 5")
    };

    cout << "List of Books:\n" << endl;
    for (int i = 0; i < 5; ++i) {
        cout << "Title: " << books[i].getTitle() << "\n";
        cout << "Author: " << books[i].getAuthor() << "\n\n";
    }

    return 0;
}
```