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Section	:	BCS – 5G
Course	:	Software Design & Analysis

Assignment # 01

Q1 (a) Use-Case Diagram
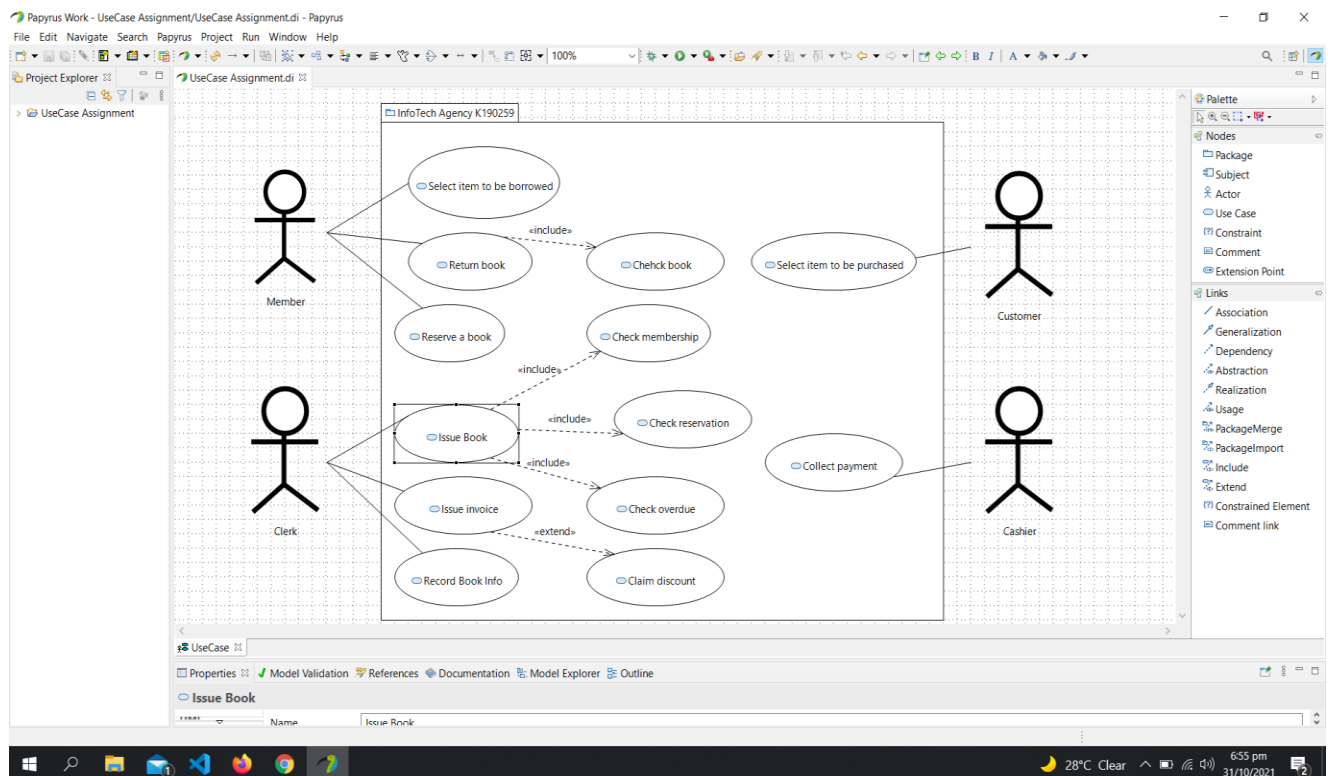
Q1 (b) Class Diagram
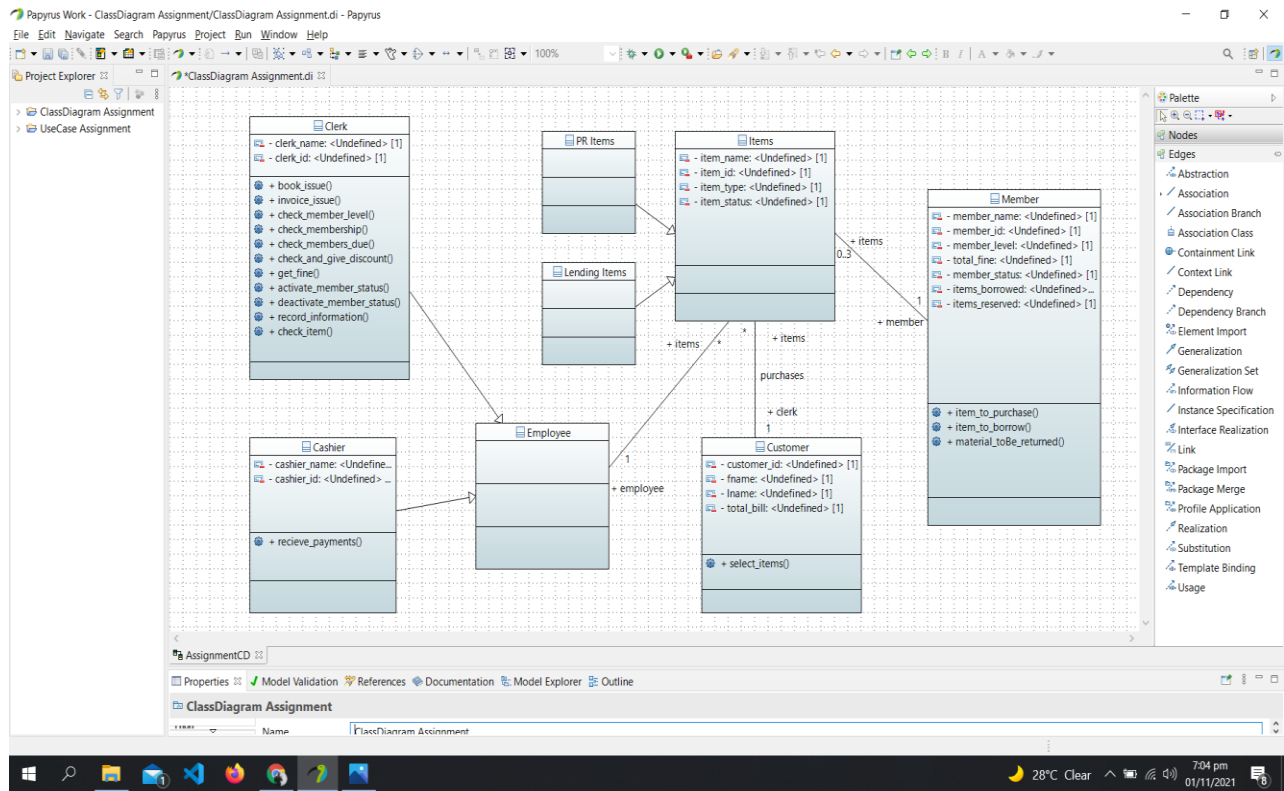
Q2 (C++ Code)

```cpp
#include<iostream>
using namespace std;
class Employee
{
protected:
        int hours;
        float salary;
public:
        virtual int calculateSalary() = 0;
};
class SalariedEmployee : public Employee
{
        public:
                SalariedEmployee(int hrs)
                {
                        hours=hrs;
                }
                calculateSalary()
                {
                        salary=100*hours;
                        cout<<"Total Salary of Salaried Employee: "<<salary<<endl;
                }
};
class HourlyEmployee : public Employee
{
        public:
```

```cpp
        HourlyEmployee(int hrs)

        {

                hours=hrs;

        }

        calculateSalary()

        {

                salary=120*hours;

                cout<<"Total Salary of Hourly Employee: "<<salary<<endl;

        }

};

int main()

{

        SalariedEmployee SE(8);

        SE.calculateSalary();

        cout<<endl;

        HourlyEmployee HE(12);

        HE.calculateSalary();

}
```

Output:

E:\OneDrive\Desktop\SDA Q2.exe

```
Total Salary of Salaried Employee: 800

Total Salary of Hourly Employee: 1440


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Process exited after 0.03866 seconds with return value 0
Press any key to continue . . .
```
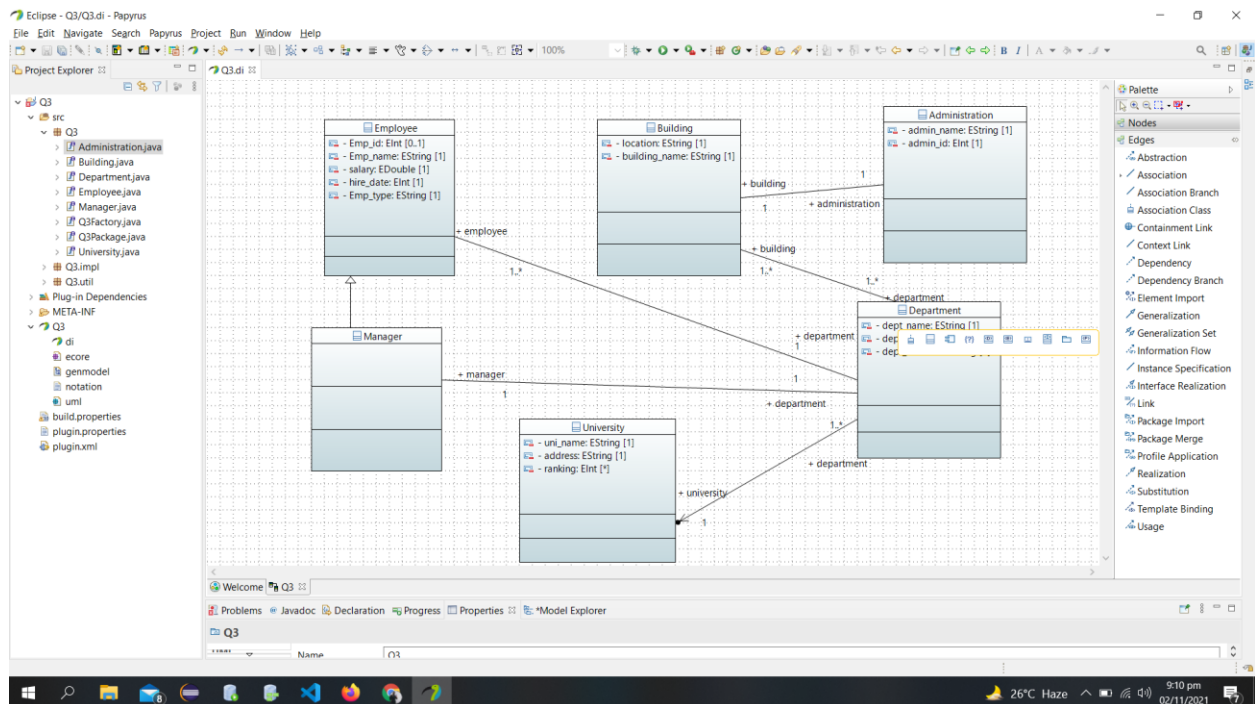
Q3 (Java Code)

Java Code:

➔ Java codes are zipped in file named (Q3 Java Codes) because there are 8 files generated in Java Codes.