**BIT-2400, Assignment 7**

**Title**

Design Patterns Assignment

**Functional Requirements**

1. Create an interactive game or application that uses the Singleton, Observer and Factory design patterns taught in class.

Example assignment:

A two-player game where one player is controlled with “WASD” and the other player with the arrow keys. Random fruits are dropped around the map and the users can move around and collect them. When a player collides with a fruit their score is increased by the amount that type of fruit is worth.

**Implementation Requirements**

* This is an individual assignment.
* Add a comment section at the top of the code for Documentation with following parts:

Title: Assignment-7

Author: [your name]

Objective: [very short 1-2 sentence description of goal as you understand]

**Submission Requirements**

Submit your zipped project files on CuLearn.

**Evaluation**

* Display knowledge of the Singleton Design pattern 25%
* Display knowledge of the Observer Design pattern 25%
* Display knowledge of the Factory Design pattern 25%
* Make an interactive game or application that uses the patterns 25%
* Bonus! above and beyond +5%

**Penalties**

Late submission has 25% penalty per day (1 minute till 24 hours is considered 1 day).