

Login to matrix and create a file called “**quiz4.txt**”.

Answer the following questions and when done enter the following command:

~fardad.soleimanloo/submit oopq4 <ENTER>

- 1- What is a Constructor and how and when it is called?
- 2- What is a destructor and how and when it is called?
- 3- What safe empty state?
- 4- Having the following class fully implemented: (you can copy the code for mark from mark.cpp [HERE](#))
Add Two constructors:
A- No argument that puts the Mark in a safe empty state (It is your call to decide what is a safe empty state for a Mark)
B- A 3 argument constructor that sets a mark.
C- Add a method calls isEmpty() that returns a Boolean. It returns true if the Mark is in a safe empty state.

```
class Mark {  
private:  
    char m_grade[3];  
    double m_points;  
    int m_maxPoints;  
    int m_displayType;  
    void setGrade();  
public:  
  
    double points()const;  
    void points(double value);  
    int maxPoints()const;  
    void maxPoints(int value);  
    int weightedMark()const;  
    double gpa()const;  
    const char* grade()const;  
    void display()const;  
    void displayType(int dType);  
1-    };
```