

```
1: #ifndef Universe_H_
2: #define Universe_H_
3:
4: #include <SFML/System.hpp>
5: #include <SFML/Window.hpp>
6: #include <SFML/Graphics.hpp>
7: #include <vector>
8: #include <iostream>
9: #include "CelestialBody.h"
10:
11: using namespace std;
12:
13: class Universe : public sf::Drawable
14: {
15: public:
16:     Universe(int size);
17:     void step(double seconds);
18:     friend ostream& operator<<(ostream& out, const Universe& Galaxy);
19: private:
20:
21:     void draw(sf::RenderTarget& target, sf::RenderStates states) const;
22:     int galaxySize;
23:     double maxR;
24:     vector<unique_ptr<CelestialBody> > galaxy;
25: };
26:
27: ostream& operator<<(ostream& out, const Universe& Galaxy);
28:
29: #endif
```