

1. Design a class to encapsulate a package. List member variables and methods. Write a short justification of your design. (P.S. Don't forget about **overloaded operators**!)

I use a class named package to encapsulate it.

Variables:

```
//priority
int w_pl;
string w_p;
//package content
string w_c;
//destination
string w_d;
```

methods:

```
//get&set Priority functions
void setPriority(int pl);
int getPriority();
void setPriorityS(string p);
string getPriorityS();

//get&set content functions
void setContent(string c);
string getContent();

//get&set destination functions
void setDis(string d);
string getDis();
```

2. Design a class to represent the Shipping Company (or some would say it's Warehouse). It is required to use an array-based Heap in order to handle the prioritizing. List any other members you want it have. Justify your design.

I use a class named Executive to represent the Shipping Company which save package depends on priority. We have overnight, 2-Day, ground, and whenever, as we know overnight is urgent, so I suppose overnight is level 0, in this way I transform string into int. So, I have overnight=0. 2-day = 1, ground=2, and whenever =3. Besides priority, we also need content, destination, and number of package that the truck can hold as member variables.

