Task 1:

Class Mail:

- Attributes: source address, destination address, tracking number, current location, weight, shipping cost
    - Location is going to be one of the location types below, or None of it has been delivered

Class Package extends Mail:

- Attributes: all above, plus size, and insured value

Class Location:

- Attributes: Name, items at this location

Class Truck extends Location:

- Attributes: All above, plus current location (latitude & longitude pair perhaps)

Class Depot extends Location:

- Attributes: all above, plus location (address probably)

Class Person:

- Attributes: Name, Address, shipped items, received items
    - Shipped items & received items will be lists of the Mail class above

Class ShippingCompany:

- Attributes: All packages, all locations, all users

Task 2:

See above

Task 3:

ShippingCompany.ship_item(item_details): This handles a user shipping a new item, and providing all of the details laid out above. This will add the item to the list of items tracked, and set the current location of the item to the depot where it was shipped at.

ShippingCompany.view_status(tracking_number?, name?): Based on either the name provided, or the tracking number provided, find the package(s) of the user and report on their status.

Item.update(new_location): Update the location of this item, or mark it as delivered.

Truck.load(items): Loads all of the items provided onto this truck. A similar method could be used to unload the truck.