MAS Coursework Plan

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| Type of Agent | Purpose | Logic |
| Customers | To order smartphones of varying types (Small or Phablet). | Requests **1 order per day**. **1 order contains several smartphones** of the same randomly generated specification. Also contains a **quantity**, **unit price per smartphone**, **no of days till the order is due** and **an amount per late day penalty.** |
| Suppliers (1 and 2) | Purchase parts for the customers order of smartphones. | Each component can be purchased from **1 of 2 suppliers**. **Supplier 1** has all components available to be delivered the **next day**. **Supplier 2** offers **cheaper RAM and storage** but has **longer delivery times**. Both have an **unlimited number of components**. **Payment made on the day of purchase**. Each component **not made into a smartphone on day of arriva**l has a **storage cost of W pounds** for warehouse storage. |
| Manufacturer | Assemble Smartphones based on the order from the customer as long as it has the correct components available to complete the order. Its goal is to maximise profit during the 100 day simulation. | Orders **can only be shipped if manufacturer has sufficient numbers of components**. Must decide which orders to assemble and on what day. **Max of 50** can be made in a day. Assembly, shipping and delivery happen on the same day. Manufacturer receives payment on this day also. |

Constraints

1. Small smartphone must contain a 5” screen and 2000mAH battery., phablet must contain a 7” screen with a 3000mAH battery. Both must contain 1 type of RAM and 1 type of storage.
2. Component delivery times must be enforced.
3. Per component, per day warehouse cost.
4. Order can only be shipped if manufacturer sufficient components.
5. Max of 50 smartphones per day.