Eszter’s version:

Blockbuster

Blockbuster was a provider of home movie and video game rental services. Although now bankrupt, in its heyday Blockbuster stores were the go-to rental shops all across America.

A Blockbuster Store has a monthly revenue based on how much and which Products the customers rent. The Store knows about all its Products, and whether or not they are available at the moment.

The following types of Products are available at Blockbuster: Movie, TVShow, Music and VideoGame. Each Product has a title, a release date, a daily rental cost and the original retail price. All Products can be rented for 14 days.

The customer pays the full rental cost on the spot, based on how many days they want to rent it. The Store adds the new income to its monthly revenue, and the Product becomes unavailable for the duration of the rental.

Blockbuster only serves trustworthy customers, thus we can assume that the Products will always be returned, and always on time. Additionally, customers only rent one Product at a time.

Products are available on different Platforms. They can be on CD, DVD, Blu-ray or VHS. Movies and TVShows are available on a Platform based on when they were released. If they were released before 2000, they are on VHS. From 2000-2010 they are on DVD, and after 2010 they are on Blu-ray. All Music Products are on CD, and all VideoGame Products are on DVD, regardless of their release date.

Some selected Products were really popular, and became BlockbusterFavorite. These and only these Products are also available for purchase for their original retail price. When that happens, the Store removes it from its collection.

Original:

Blockbuster

Blockbuster was a provider of home movie and video game rental services. Although now bankrupt, in its heyday Blockbuster stores were the go-to rental shops all across America.

A Blockbuster Store has a monthly revenue based on how much and what kind of Products the customers rent. The Store knows about all its Products, and whether or not they are available at the moment.

The following types of Products are available at Blockbuster: Movie, TVShow, Music and VideoGame. Each Product has a title, a release date, a daily rental cost and the original retail price. All Products can be rented for anywhere between 3-14 days.

Every day, there is a 75% chance that a customer walks in the Store to rent a Product. Customers are so eager to rent something, that they will always just pick the first Product they see from the currently available collection. The customer pays the full rental cost on the spot, based on how many days they want to rent it. The number of days is determined at random. The Store adds the new income to its monthly revenue, and the Product becomes unavailable for the duration of the rental.

Blockbuster only serves trustworthy customers, thus we can assume that the Products will always be returned, and always on time. Additionally, customers only rent one Product at a time, and there is only one customer every day (if there is one).

Products are available on different Platforms. They can be on CD, DVD, Blu-ray or VHS. Movies and TVShows are available on a Platform based on when they were released. If they were released before 2000, they are on VHS. From 2000-2010 they are on DVD, and after 2010 they are on Blu-ray. All Music Products are on CD, and all VideoGame Products are on DVD, regardless of their release date.

Some select Products were really popular, and became BlockbusterFavorite. These and only these Products are also available for purchase for their original retail price. When that happens, the Store removes it from its collection.

Using OOP concepts and principles, based on the above, simulate a Blockbuster Store for 3 months, where every month lasts for 30 days!