1. Identify and analyze a device that is an IoT device now, but in the past was a non-IoT device. Describe and list the features of the device. Compare the functions of the device in the past to the functions of the device now.

Non-IoT device in the past: Traditional Refrigerator. It is just Refrigerator. Its function is only keeping items cold.

IoT device now: IoT-Refrigerator. It is Refrigerator + Computational Intelligence + Network. Its function is : 1. ordering food items when stock is low; 2. searching for lowest food price; 3.anticipating your meals; 4.searching new sites for worldwide food price trends; 5. ordering water filter when needed.

1. Compare the functions of the device in the past to the functions of the device now.

Traditional Refrigerator: 1. keeping items cold.

IoT-Refrigerator: 1. ordering food items when stock is low; 2. searching for lowest food price; 3.anticipating your meals; 4.searching new sites for worldwide food price trends; 5. ordering water filter when needed.

1. For your chosen IoT device, list any improvements or any diminishments if they exist, over the non-IOT device. Describe any limitations that are present in the new IoT version of the device.

Add the function that I can talk to IoT-Refrigerator, and I can control the it to do what I want to do. For example,open and close the refrigerator-door.

The limitation for this function is that we need to apply Artificial Intelligence and Natural Language Processing technology in it, which are difficult to do.

1. Describe any privacy issues with the IoT device that never existed in the original version of the device. Compare the price of the original device to the price of the new IoT version of the device. When performing a price comparison, attempt to normalize for the changing value of currency over time by using an online inflation calculator.

For IoT-Refrigerator, one of privacy issues is my privacy data, like my account for buying food online. If people can invade my IoT-Refrigerator, and get my account, then they can steal my money.