Yupi Store

As a programmer for the famous Yupi Store, your task is to develop a straightforward program to manage candy operations. The program should include functionalities for Create, View, and Buy Candy, adhering to the following specifications:

1. **Create Candy**
   Implement functionality to add a new candy with the following attributes:

   ID: A unique identifier generated automatically (see details below).

   Name: The name of the candy.

   Category: The category of the candy.

   Stock: The quantity available in the store.

   Price: The cost of one unit of the candy.

   Validation Rules:

   - Candy name length must be between 8–20 characters (inclusive).
   - Candy category must be one of the following:
     - Choco
     - Gummy
     - Minty
     - Fruity
   - Candy stock and price must be greater than 0.

   ID Format:

   The system should automatically generate a unique ID for each candy in the following format:

   ### XX[0-1][0-1][0-1]

   XX: The first two characters of the candy's name (e.g., YU for Yupi Bear).

   [0-1][0-1][0-1]: A three-digit sequence representing the candy's order.

   Storage:

   All candy data should be saved to a file named **candy.txt.**

2. **View Candy**
   The user should be able to:

- **View all** candies, sorted in descending order (based on candy name) using **Merge Sort**.
- **View** candies **by category** (e.g., only candies in the Gummy category).

To determine the view mode, the user must input:

- **all**: Displays the full list of candies.
- **[category name]**: Displays candies belonging to a specific category (case-sensitive).

3. **Buy Candy**
   Enable the user to purchase candies by providing:
   - **Candy Name**: The name of the candy to buy.
   - **Quantity**: The desired number of units.

   Validation Rules:

   - The requested quantity **must not exceed** the available stock.

   Then, **reduce** the candy's stock by the purchased quantity.

   If the stock **reaches 0**, **remove** the candy from the list and **update** candy.txt.