Hands-On Test

Data Transformation (60 min.)

1. Populate a string with the following input data (in this exact multi-line format):

   ```
   (Name)John Doe
   (Age)20
   (City)Ashtabula, OH
   (Flags)NYN

   (Name)Jane Doe
   (Flags)YNY
   (City)N Kingsville, OH

   (Name)Sally Jones
   (Age)25
   (City)Paris
   (Flags)YYY
   ```

2. Parse the string assuming the following rules:
   a. The string contains a list of person records
   b. Each person record contains the following fields:
      i. Name
      ii. Age (optional)
      iii. City
      iv. Flags
   c. Each line contains a key/value pair for a single field
      i. The key always comes before the value
      ii. The key always begins with an opening parenthesis and always ends with a closing parenthesis
   d. Person records are separated by one or more blank lines
   e. The City line may optionally specify the State (separated by a comma)
   f. The Flags field will always contain exactly three Y or N characters which represent the Boolean values for the following fields in this order:
      i. Is Female
      ii. Is Student
      iii. Is Employee

3. Output the records to the standard output (console) so that they are displayed as follows:

```
John Doe [20, Male]
    City     : Ashtabula
    State    : OH
    Student  : Yes
    Employee : No
Jane Doe [Female]
    City     : N Kingsville
    State    : OH
    Student  : No
    Employee : Yes
Sally Jones [25, Female]
    City     : Paris
    State    : N/A
    Student  : Yes
    Employee : Yes
```