Input.txt  
dt,temp,col3,col4,col5,col6,col7

2010-06-01,35.2,a,b,c,d,e

2011-07-01,38.5,a,b,c,d,e

2010-12-01,10.5,a,b,c,d,e

2011-01-01,5.0,a,b,c,d,e

2012-08-15,40.1,a,b,c,d,e

mapper.py  
import sys

for line in sys.stdin:

    line = line.strip()

    if line.startswith("dt"):

        continue

    parts = line.split(",")

    if len(parts) != 7:

        continue

    date = parts[0]

    year = date.split("-")[0]

    try:

        temperature = float(parts[1])

        print(f"{year}\t{temperature}")

    except ValueError:

        continue

reducer.py

import sys

year\_temps = {}

for line in sys.stdin:

    year, temp = line.strip().split("\t")

    temp = float(temp)

    if year not in year\_temps:

        year\_temps[year] = {"min": temp, "max": temp}

    else:

        year\_temps[year]["min"] = min(year\_temps[year]["min"], temp)

        year\_temps[year]["max"] = max(year\_temps[year]["max"], temp)

if not year\_temps:

    print("No data to process.")

    sys.exit(1)

coolest\_year = min(year\_temps.items(), key=lambda x: x[1]["min"])

hottest\_year = max(year\_temps.items(), key=lambda x: x[1]["max"])

print(f"Coolest Year: {coolest\_year[0]}, Min Temp: {coolest\_year[1]['min']}")

print(f"Hottest Year: {hottest\_year[0]}, Max Temp: {hottest\_year[1]['max']}")

In Command Prompt Type  
cd "C:\Users\HP\OneDrive\Desktop\cat"  
python mapper.py < input.txt | python reducer.py