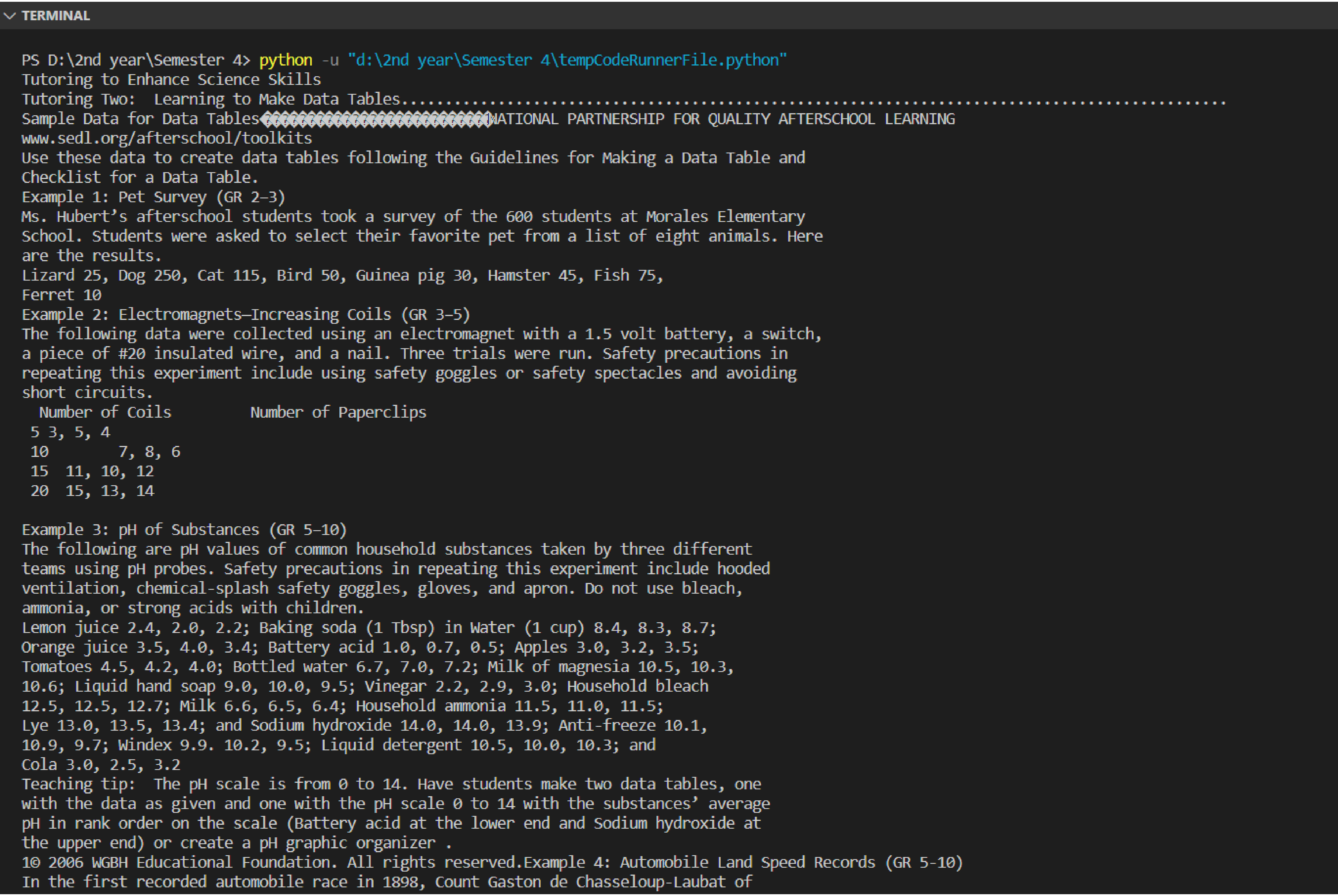

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PS D:\2nd year\Semester 4> python -u "d:\2nd year\Semester 4\tempCodeRunnerFile.python"
Tutoring to Enhance Science Skills
Tutoring Two:  Learning to Make Data Tables.............................................................................................
Sample Data for Data Tables��������������������������NATIONAL PARTNERSHIP FOR QUALITY AFTERSCHOOL LEARNING
www.sedl.org/afterschool/toolkits
Use these data to create data tables following the Guidelines for Making a Data Table and
Checklist for a Data Table.
Example 1: Pet Survey (GR 2–3)
Ms. Hubert’s afterschool students took a survey of the 600 students at Morales Elementary
School. Students were asked to select their favorite pet from a list of eight animals. Here
are the results.
Lizard 25, Dog 250, Cat 115, Bird 50, Guinea pig 30, Hamster 45, Fish 75,
Ferret 10
Example 2: Electromagnets—Increasing Coils (GR 3–5)
The following data were collected using an electromagnet with a 1.5 volt battery, a switch,
a piece of #20 insulated wire, and a nail. Three trials were run. Safety precautions in
repeating this experiment include using safety goggles or safety spectacles and avoiding
short circuits.
  Number of Coils         Number of Paperclips
 5 3, 5, 4
 10       7, 8, 6
 15  11, 10, 12
 20  15, 13, 14

Example 3: pH of Substances (GR 5–10)
The following are pH values of common household substances taken by three different
teams using pH probes. Safety precautions in repeating this experiment include hooded
ventilation, chemical-splash safety goggles, gloves, and apron. Do not use bleach,
ammonia, or strong acids with children.
Lemon juice 2.4, 2.0, 2.2; Baking soda (1 Tbsp) in Water (1 cup) 8.4, 8.3, 8.7;
Orange juice 3.5, 4.0, 3.4; Battery acid 1.0, 0.7, 0.5; Apples 3.0, 3.2, 3.5;
Tomatoes 4.5, 4.2, 4.0; Bottled water 6.7, 7.0, 7.2; Milk of magnesia 10.5, 10.3,
10.6; Liquid hand soap 9.0, 10.0, 9.5; Vinegar 2.2, 2.9, 3.0; Household bleach
12.5, 12.5, 12.7; Milk 6.6, 6.5, 6.4; Household ammonia 11.5, 11.0, 11.5;
Lye 13.0, 13.5, 13.4; and Sodium hydroxide 14.0, 14.0, 13.9; Anti-freeze 10.1,
10.9, 9.7; Windex 9.9. 10.2, 9.5; Liquid detergent 10.5, 10.0, 10.3; and
Cola 3.0, 2.5, 3.2
Teaching tip:  The pH scale is from 0 to 14. Have students make two data tables, one
with the data as given and one with the pH scale 0 to 14 with the substances’ average
pH in rank order on the scale (Battery acid at the lower end and Sodium hydroxide at
the upper end) or create a pH graphic organizer .
1© 2006 WGBH Educational Foundation. All rights reserved.Example 4: Automobile Land Speed Records (GR 5-10)
In the first recorded automobile race in 1898, Count Gaston de Chasseloup-Laubat of
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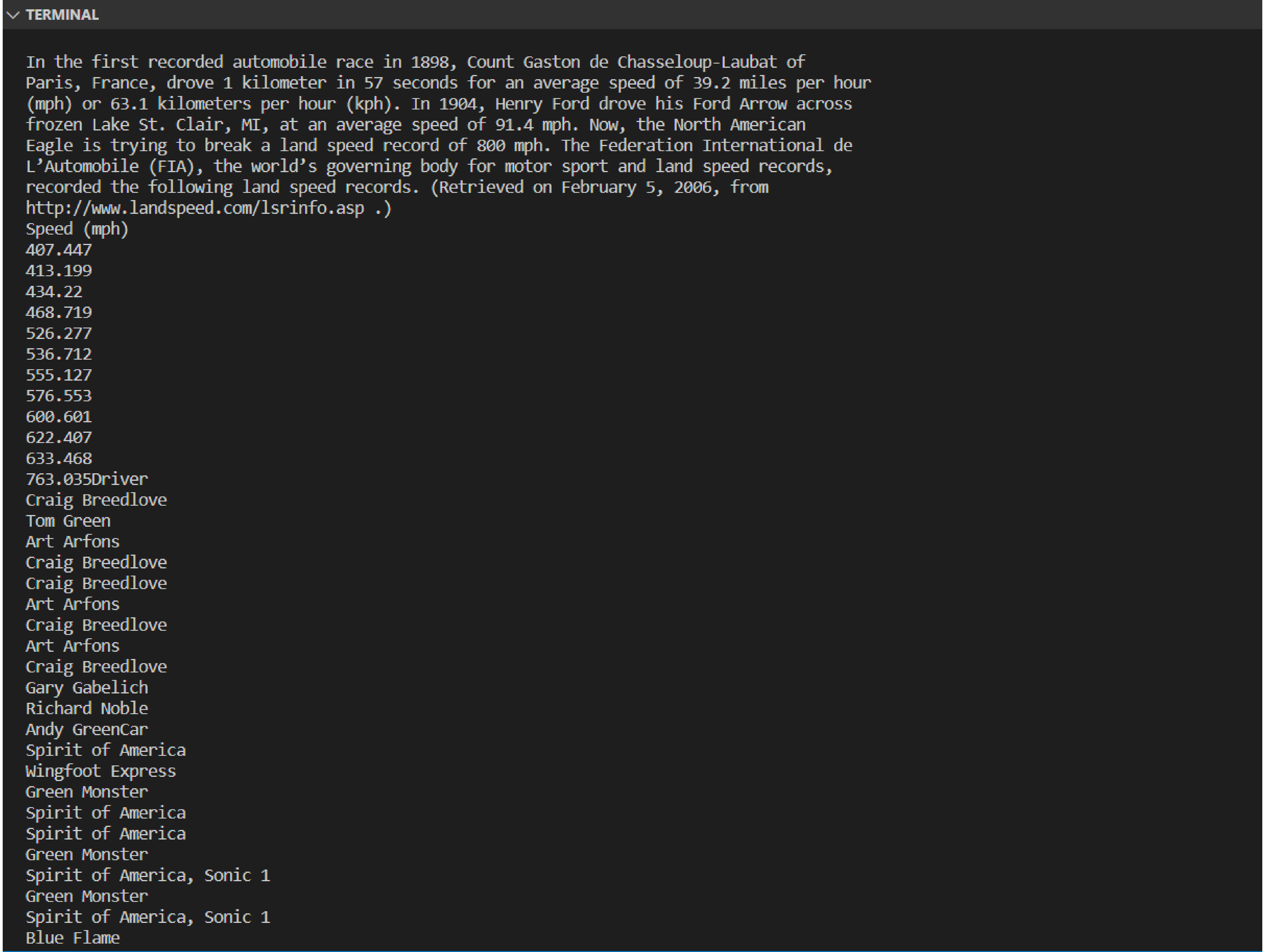

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In the first recorded automobile race in 1898, Count Gaston de Chasseloup-Laubat of
Paris, France, drove 1 kilometer in 57 seconds for an average speed of 39.2 miles per hour
(mph) or 63.1 kilometers per hour (kph). In 1904, Henry Ford drove his Ford Arrow across
frozen Lake St. Clair, MI, at an average speed of 91.4 mph. Now, the North American
Eagle is trying to break a land speed record of 800 mph. The Federation International de
L’Automobile (FIA), the world’s governing body for motor sport and land speed records,
recorded the following land speed records. (Retrieved on February 5, 2006, from
http://www.landspeed.com/lsrinfo.asp .)
Speed (mph)
407.447
413.199
434.22
468.719
526.277
536.712
555.127
576.553
600.601
622.407
633.468
763.035Driver
Craig Breedlove
Tom Green
Art Arfons
Craig Breedlove
Craig Breedlove
Art Arfons
Craig Breedlove
Art Arfons
Craig Breedlove
Gary Gabelich
Richard Noble
Andy GreenCar
Spirit of America
Wingfoot Express
Green Monster
Spirit of America
Spirit of America
Green Monster
Spirit of America, Sonic 1
Green Monster
Spirit of America, Sonic 1
Blue Flame
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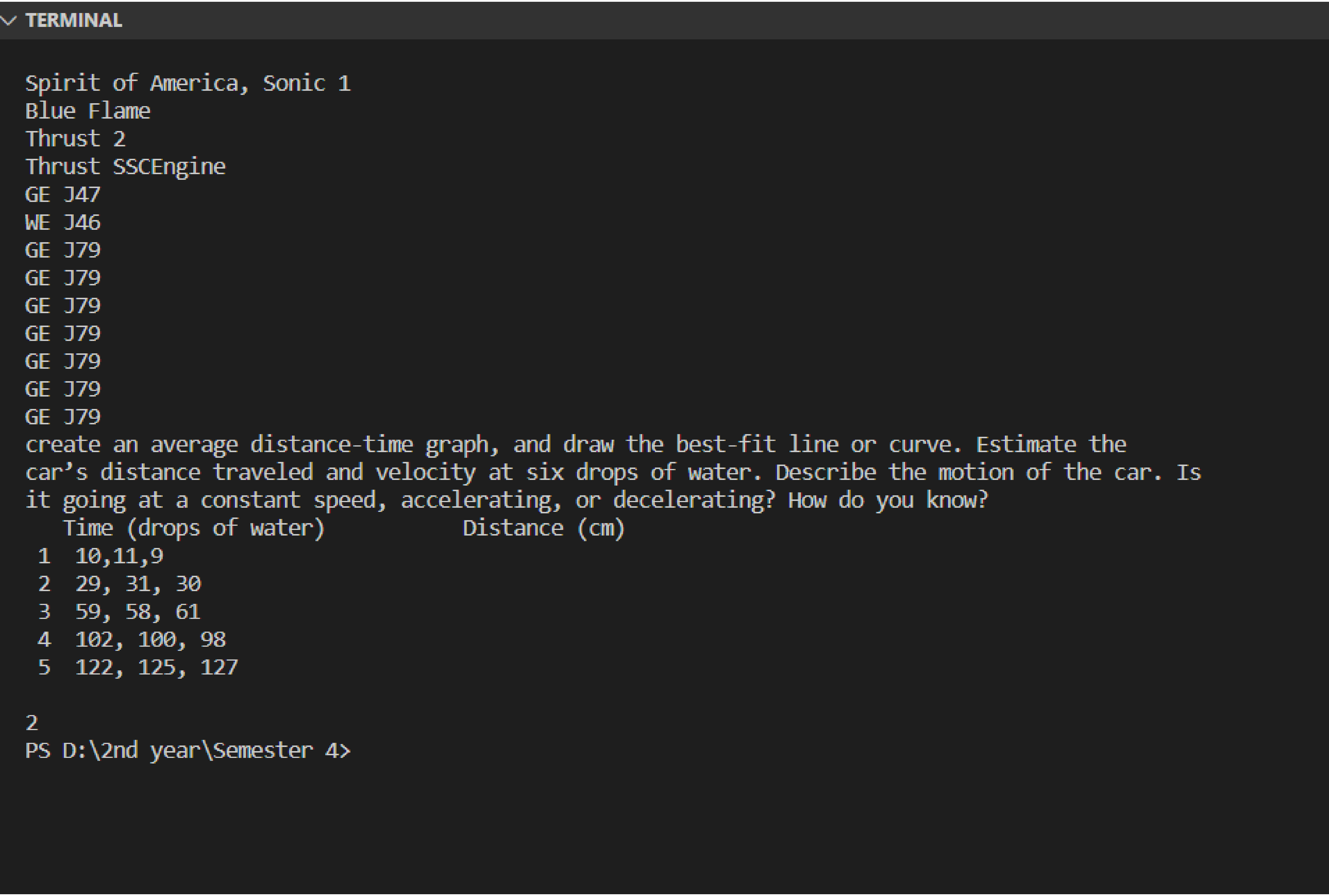

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Spirit of America, Sonic 1
Blue Flame
Thrust 2
Thrust SSCEngine
GE J47
WE J46
GE J79
GE J79
GE J79
GE J79
GE J79
GE J79
GE J79
create an average distance-time graph, and draw the best-fit line or curve. Estimate the
car’s distance traveled and velocity at six drops of water. Describe the motion of the car. Is
it going at a constant speed, accelerating, or decelerating? How do you know?
   Time (drops of water)           Distance (cm)
 1  10,11,9
 2  29, 31, 30
 3  59, 58, 61
 4  102, 100, 98
 5  122, 125, 127

2
PS D:\2nd year\Semester 4>
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