CSE 121 – Lesson 1

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Spring 2023

Music: 121 23sp Lecture Vibes 🌸

TAs:
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Afifah  Hugh  James

sli.do #cse121
Announcements, Reminders

• Check out course website for links to all activities, materials
• Creative Project 0 will be out tonight!
• The IPL will open on Monday (April 3)
• Post your introductory video and watch others'!
• Fill out the introductory survey!
  • About 1/3 of the class has filled it out so far
Escape Sequences

**escape sequence**: A special sequence of characters used to represent certain special characters in a string.

• \" to produce " in a String
• \\
 to produce \ in a String
• \n to produce a new line character (or line break) in a String
• And there are more!
Activities in Class

- **Goal**: To get you actively participating in your learning!

- May ask you to think and volunteer a suggestion

- May ask you poll in with a response (via slido)

- *Not graded* but strongly encouraged to maximize your learning and use of class time!

- **Common Format: Think, Pair, Share**
  - Question is posed
  - **Think** about the question on your own
  - **Pair** up with your neighbor and discuss the question
    - Focus on *how* you arrived at your answers, whether they're the same or different!
  - **Share** what you discussed with the rest of the class!
Turtle Time!
### Turtles!

Turtle `donatello` = new Turtle();

<table>
<thead>
<tr>
<th>Method</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>forward(n)</code></td>
<td>Moves the turtle forward by $n$ steps</td>
</tr>
<tr>
<td><code>backward(n)</code></td>
<td>Moves the turtle backward by $n$ steps</td>
</tr>
<tr>
<td><code>right(d)</code></td>
<td>Turns the turtle right by $d$ degrees</td>
</tr>
<tr>
<td><code>left(d)</code></td>
<td>Turns the turtle left by $d$ degrees</td>
</tr>
<tr>
<td><code>speed(ms)</code></td>
<td>Sets the number of milliseconds it takes for the turtle to perform an action (e.g., if $ms$ is 1000, then it will take the turtle $1000 \text{ ms} = 1 \text{ second}$ to perform an action like moving forward or turning).</td>
</tr>
<tr>
<td><code>up()</code></td>
<td>Picks up the turtle's pen so it doesn’t draw when it moves</td>
</tr>
<tr>
<td><code>down()</code></td>
<td>Puts the turtle's pen down so it draws when it moves</td>
</tr>
<tr>
<td><code>width(w)</code></td>
<td>Sets the width of the turtle's pen to $w$ pixels wide</td>
</tr>
<tr>
<td><code>penColor(c)</code></td>
<td>Sets the color of the turtle's pen to $c$</td>
</tr>
</tbody>
</table>
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Assuming we have created a Turtle named Donatello, what do you think the following commands would end up drawing?

donatello.left(90);
donatello.forward(30);
donatello.right(135);
donatello.forward(40);
donatello.left(135);
donatello.forward(30);

a) A circle
b) A triangle
c) The letter M
d) The letter N
e) A star