

MAISIE'S MUGS ONLINE STORE



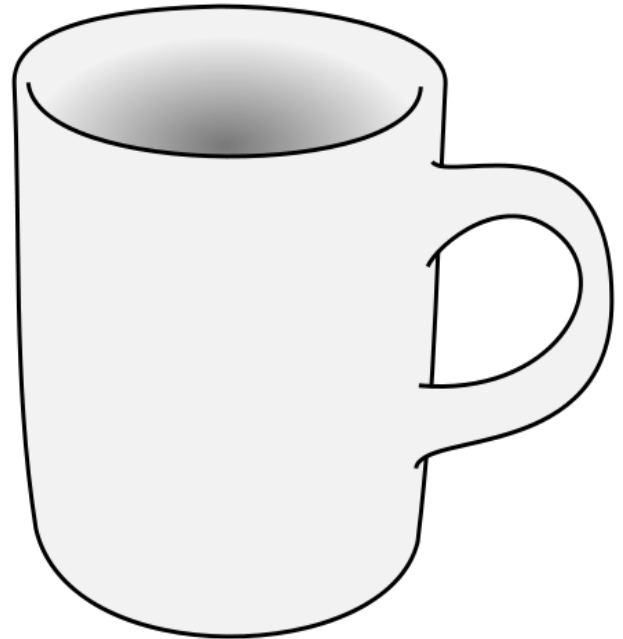
1.2.1 Activity

Maisie has decided to start a business selling mugs with cool internet slang and memes. Because Maisie doesn't know a lot about what's cool, she has decided to write a script that finds and records trending phrases on social media.

Maisie is currently using a 10-year-old computer with 2 GB of RAM and 32 GB of hard drive space. She is not convinced that she needs a new computer. We need to convince Maisie that she needs to upgrade to a newer computer if she wants to process thousands of data points every day.

Maisie has reluctantly agreed to upgrade her computer. However, she has no idea where to start. Let's help her out! She is planning to build her own PC. Building a PC requires lots of parts, but Maisie has everything covered besides the CPU, RAM, and hard drive.

She has given you a budget of \$500 to choose a CPU, RAM, and hard drive. The limited budget means you must make some tough decisions like whether to spend more money on a powerful processor or on more RAM.



Source: commons.wikimedia.org/

Some things to remember when deciding what to prioritize:

- The script that finds trendy internet slang will be running 24/7.
- A large portion of the data will be stored on the cloud instead of the hard drive.
- Maisie likes to use multiple software at once.

We will be using PCPartPicker (<https://pcpartpicker.com/list/>) to help us build the computer.

CPU (Processor): <https://pcpartpicker.com/products/cpu/>

RAM: <https://pcpartpicker.com/products/memory/>

Hard Drive: <https://pcpartpicker.com/products/internal-hard-drive/>

Questions

Maisie is very particular about things and has some questions about what you chose.

1. **Why would having a computer with more RAM and hard drive space be beneficial for Maisie?**

2. **Which PC parts do you recommend?**

PC Part	Name of Piece	Cost
CPU		
RAM		
Hard Drive		
		Total Cost:

3. **What were the deciding factors for choosing a CPU?**

4. **How much RAM and storage space will her new computer have?**

5. Did you prioritize more RAM or storage space? How did you decide?

Maisie's business partner, Michael, has decided he also wants to be part of the conversation about Maisie's new computer. Michael wants to know why Maisie needs both a hard drive and RAM, since they both store data.

6. Explain the difference between RAM and storage space to Michael.

Now Michael has suggested that instead of buying a new computer, Maisie could instead download some RAM off the internet.

7. Explain to Michael why you cannot download RAM off the internet.

Michael isn't giving up yet. He says that if Maisie needs more storage space, she could keep the files on his flash drive. Michael says his flash drive holds 512 Kb of data, which is a lot compared to Maisie's hard drive, which holds 32 GB of data. Why is Michael wrong about 512 Kb of storage being more than 32 GB?

8. Explain why Michael is wrong about 512 Kb of storage being more than 32 GB.

