Before you begin

Observe the following requirements before removing and replacing memory.

**WARNING**: Never open the cover while the power cord is attached. You might damage your computer or be injured by the spinning fan blades.

**WARNING**: Avoid touching sharp edges in the computer.

**CAUTION**: Static electricity can damage the electronic components inside the computer. Discharge static electricity by touching the metal cage of the computer before touching any internal parts or electronic components.

**Tools needed**
Phillips #2 screwdriver

**Troubleshooting**

If the computer displays a memory error after you have turned it back on, turn the computer off and unplug the power cord. Open up the computer and make sure the memory module is inserted all the way into the slot, and then press down on it to be sure it is firmly seated.

**Memory compatibility**

The computer uses UDIMMs (unbuffered dual in-line memory modules) that must meet the following requirements:

- 240-pin
- DDR4-2133
- Unbuffered, non-ECC (64-bit)
- 1.5 V
- 32 GB maximum installable memory

Because the memory uses dual channels, you must use the same memory module type for both sockets.

**NOTE**: The actual memory transfer speed might vary based on the processor used in your computer.

**NOTE**: Memory performance might vary due to different system configurations.

**Removing the memory module**

1. Press the power button to turn off the computer.
2. Disconnect the power cord and all attached cables from the back of the computer.
3. To remove the access panel, loosen the captive Phillips screw (1), slide the access panel back, and then lift it off the computer (2).

4. Locate the memory modules:
   1. Optical drive
   2. Hard drive

3. Memory modules

5. Open both latches of the memory module slot (1), and then lift the module from the slot (2). Use the same procedure to remove all memory modules.

6. Touch the replacement memory module bag to the metal of the computer, and then remove the replacement memory module from the bag.
Replacing the memory module

1. Open both latches of the memory module slot (1), and then insert the memory module into the slot (2). Push the module down into the slot, ensuring that the module is fully inserted and properly seated. Close both latches (3).
   NOTE: Memory modules are notched to prevent incorrect insertion.

2. Position the access panel on the computer, and then slide the panel into place (1). Tighten the screw in the rear of the panel (2).

3. Plug the power cord and any additional cables into the back of the computer.

4. Press the power button to turn on the computer.