| Step | Description |
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| Project Description | This step provides an introduction to the scenario, explaining that the task involves managing an allow list of IP addresses used for accessing restricted content in a healthcare company. Employees' access is based on their IP addresses, and there's a need to remove specific IPs from the allow list. |
| Open the file | In this step, the Python with statement and the open() function are used to open the file that contains the allow list of IP addresses. The with statement ensures proper file handling. |
| Read the file contents | The .read() method is employed to read the contents of the file, storing them as a string in a variable. This step prepares the data for further processing. |
| Convert to a list | The string containing the IP addresses is converted into a list using the .split() method. This list structure is more suitable for data manipulation. |
| Iterate through remove list | A for loop is implemented to iterate through the remove list of IP addresses. This loop sets the stage for identifying and removing unwanted IPs from the list. |
| Remove IP addresses | The .remove() method is used within the loop to remove any IP addresses found in the remove list from the list of IP addresses read from the file. |
| Update the file | After removing the specified IPs, the updated list of IP addresses is converted back into a string using .join(). The .write() method is then utilized to overwrite the original file with the revised list of IPs. |
| Summary | The summary of the algorithm highlights its purpose: to maintain an updated allow list of IP addresses for restricted content access. It outlines the key steps, starting with opening the file, reading and processing its contents, and ending with updating the file. The algorithm is designed to remove specified IPs efficiently. |