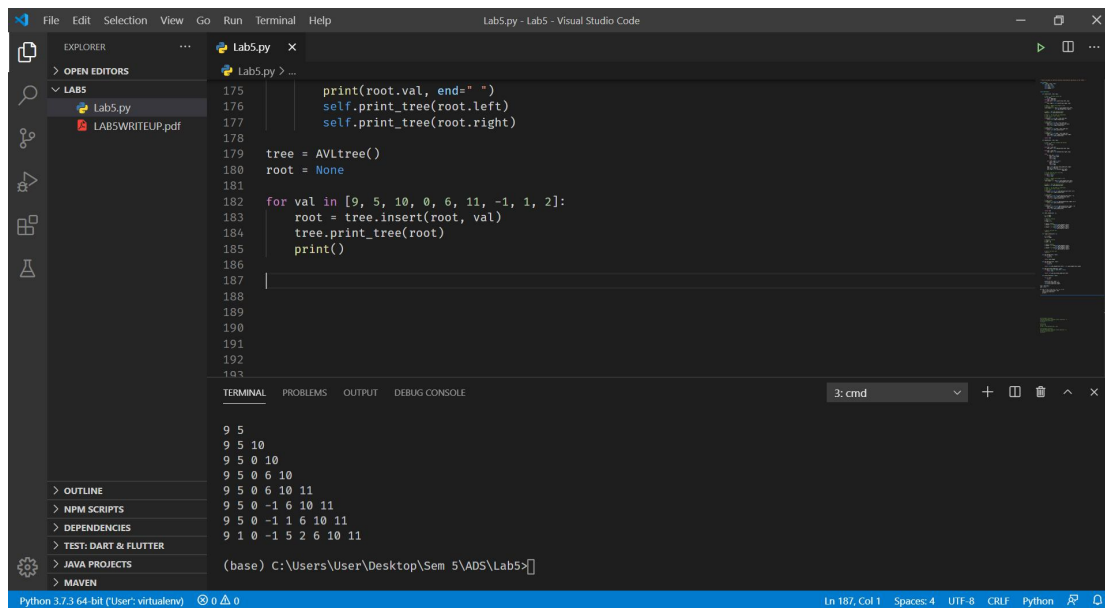


# Output

Insert:



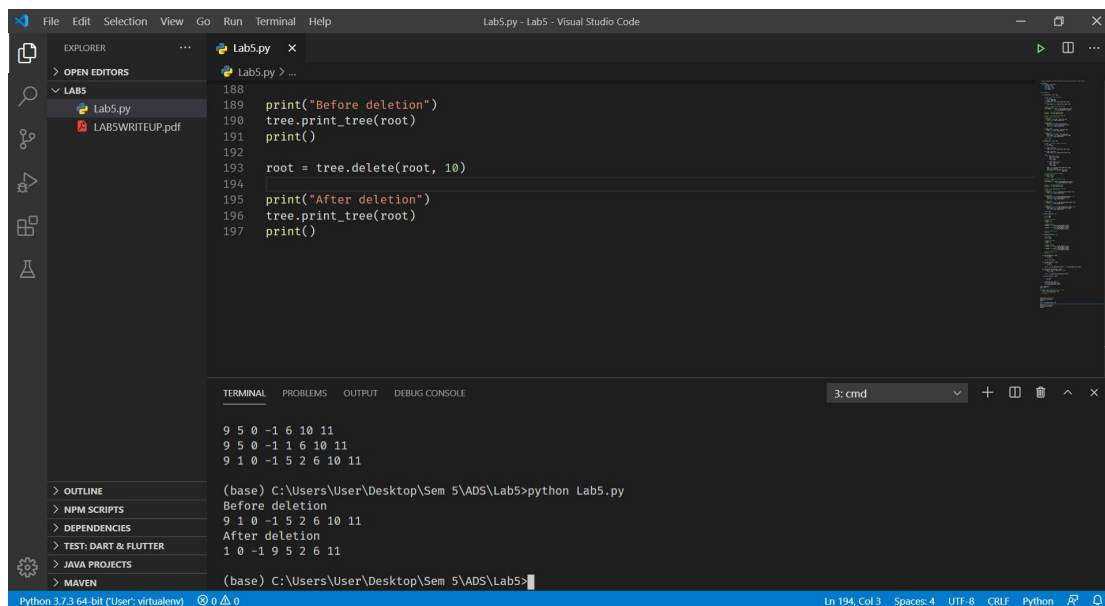
The screenshot shows the Visual Studio Code editor with a file named `Lab5.py`. The code defines a `AVLtree` class and a function to insert a new node into the tree. The terminal output shows the result of the insertion.

```
175         print(root.val, end=" ")
176         self.print_tree(root.left)
177         self.print_tree(root.right)
178
179     tree = AVLtree()
180     root = None
181
182     for val in [9, 5, 10, 0, 6, 11, -1, 1, 2]:
183         root = tree.insert(root, val)
184         tree.print_tree(root)
185         print()
186
187
188
189
190
191
192
193
```

Terminal Output:

```
(base) C:\Users\User\Desktop\Sem 5\ADS\Lab5>
9 5
9 5 10
9 5 0 10
9 5 0 6 10
9 5 0 6 10 11
9 5 0 -1 6 10 11
9 5 0 -1 1 6 10 11
9 1 0 -1 5 2 6 10 11
```

Delete:



The screenshot shows the Visual Studio Code editor with a file named `Lab5.py`. The code defines a `AVLtree` class and a function to delete a node from the tree. The terminal output shows the result of the deletion.

```
188
189     print("Before deletion")
190     tree.print_tree(root)
191     print()
192
193     root = tree.delete(root, 10)
194
195     print("After deletion")
196     tree.print_tree(root)
197     print()
198
```

Terminal Output:

```
(base) C:\Users\User\Desktop\Sem 5\ADS\Lab5>python Lab5.py
Before deletion
9 5 0 -1 6 10 11
9 5 0 -1 1 6 10 11
9 1 0 -1 5 2 6 10 11
After deletion
1 0 -1 9 5 2 6 11
```