

```
import xml.etree.ElementTree as ET
```

```
def parse_xml_to_matrix(file_path):  
    tree = ET.parse(file_path)  
    root = tree.getroot()
```

```
# پیدا کردن همه والد ها و فرزندان
```

```
parents = []  
children = []
```

```
for parent in root.findall("parent"):  
    parent_id = parent.get("id")  
    parents.append(parent_id)
```

```
for child in parent.findall("child"):  
    child_id = child.get("id")  
    if child_id not in children:  
        children.append(child_id)
```

```
# ساخت ماتریس صفر
```

```
matrix = [[0 for _ in  
range(len(children))] for _ in  
range(len(parents))]
```

# پدر کردن ماتریس با استفاده از ارتباطات والد و فرزند

```
for i, parent in  
enumerate(root.findall("parent")):  
    for child in parent.findall("child"):  
        child_id = child.get("id")  
        j = children.index(child_id)  
        matrix[i][j] = 1
```

```
return parents, children, matrix
```

# استفاده از تابع

```
parents, children, matrix =  
parse_xml_to_matrix("sample.xml")
```

# نمایش ماتریس

```
print(" ", " ".join(children))
```

```
for i, row in enumerate(matrix):  
    print(parents[i], row)
```