

```
public class Vertex {  
    protected Vertex parent;  
    protected int depth;  
  
    public void visit(Vertex origin) {  
        this.parent = origin;  
        if (origin == null) {  
            this.depth = 0;  
        } else {  
            this.depth = origin.depth + 1;  
        }  
    }  
}
```