

```
class AffineEdge {  
    UnionNode src, dst;  
    AffineMap src_access, dst_access;  
};
```

(a)

```
class AffineMap {  
    AccessMatrix matrix;  
    AccessOffset offset;  
    vector<IVar> ivars;  
};
```

(b)

```
union UnionNode {  
    Buffer buf;  
    AffineGraph sub_graph;  
    Task task;  
    vector<AffineEdge> get_input_edges();  
    vector<AffineEdge> get_output_edges();  
    void emit_task();  
};
```

(c)

```
class AffineGraph {  
    vector<UnionNode> nodes;  
    vector<AffineEdge> in_graph_edges;  
    vector<AffineEdge> in_edges, out_edges;  
    void topo_sort();  
    void emit_task();  
};
```

(d)