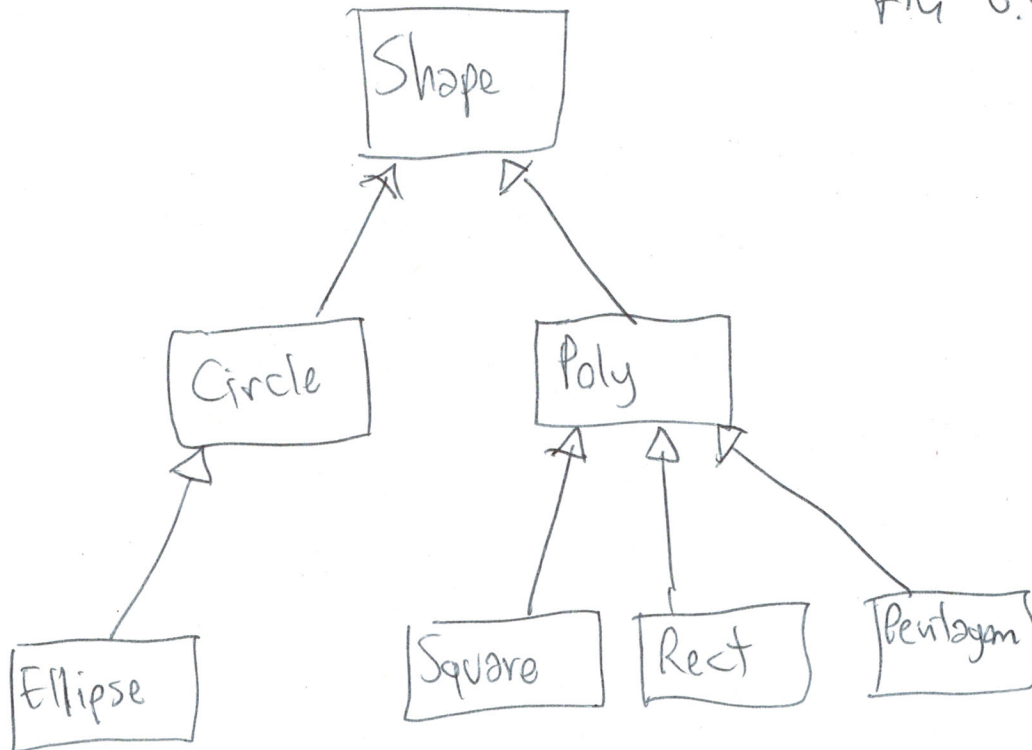
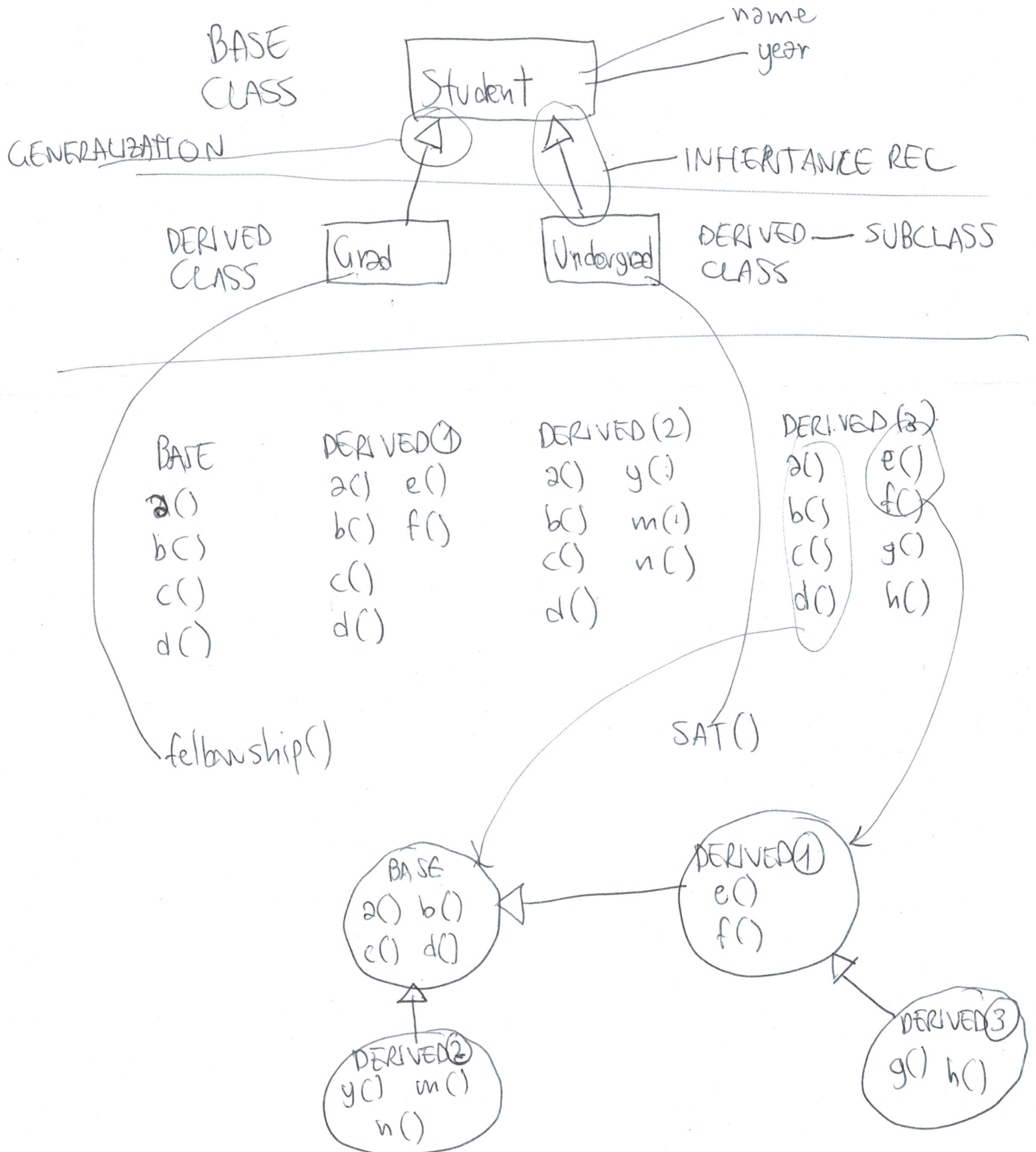


FIG 6.4



6.1 INHERTANCE



```
class Student {
```

```
    ...
```

```
}
```

```
class Grad : public Student {
```

```
    ...
```

```
}
```

```
class UnderGrad : public Student {
```

```
    ...
```

```
}
```

virtual KEYWORDS

DYNAMIC BINDING

IMPLEMENTING POLYMORPHISM

RUNTIME

SEC 6.3

ABSTRACT CLASS

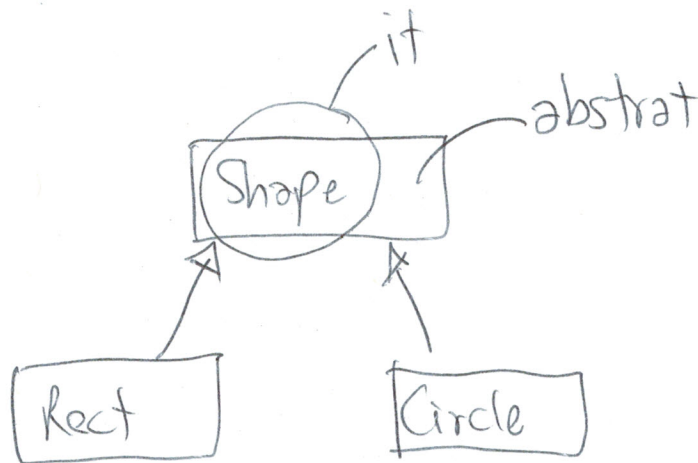


AT LEAST 1
PURE VIRTUAL
FUN



HAVE NO
PUBLIC
CONSTRUCTOR

YOU CANNOT INSTANTIATE
AN ABSTRACT CLASS



ex 6.13 ... 6.16

```
class Shape {
public:
    virtual double area() = 0;
    ...
}
```

PURE VIRTUAL FUNCTION

PURE

HAVE TO BE IMPL.
BY SUBCLASSES

SEC 6.5

OVERLOADING

```
QString toString();  
QString toString(char c);
```

OVERRIDING

```
class Account {  
public:  
    virtual QString toString();  
    ...  
};  
class InsecureAccount : public Account {  
public:  
    QString toString();  
    ...  
};
```

HIDING

```
class Account {  
public:  
    virtual void deposit(double amnt);  
    ...  
};  
class InsecureAccount : public Account {  
public:  
    void deposit(double amnt, QDate date);  
    ...  
};
```

Account::deposit(abc); ← TO AVOID HIDING

SEC 6.6 Ezust

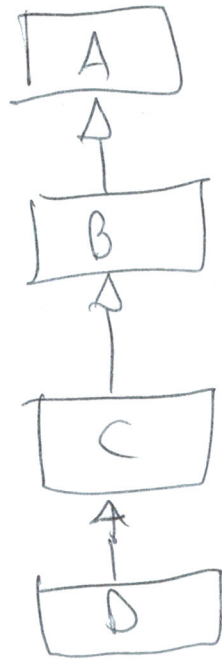
NEVER INHERITED:

- CONSTRUCTOR
 - COPY CONSTRUCTOR
 - COPY ASSIGNMENT OPERATOR
 - DESTRUCTOR
-

chap2s7

chap2s8

```
class Student {  
    public:  
        Student (param)  
            :initList {  
                // body ctor  
            }  
        ~Student() {  
            // body dtor  
        }  
}
```



WHEN YOU CREATE
A CLASS D
CONSTRUCTION

$A \rightarrow B \rightarrow C \rightarrow D$

DECONSTRUCTION

$D \rightarrow C \rightarrow B \rightarrow A$
