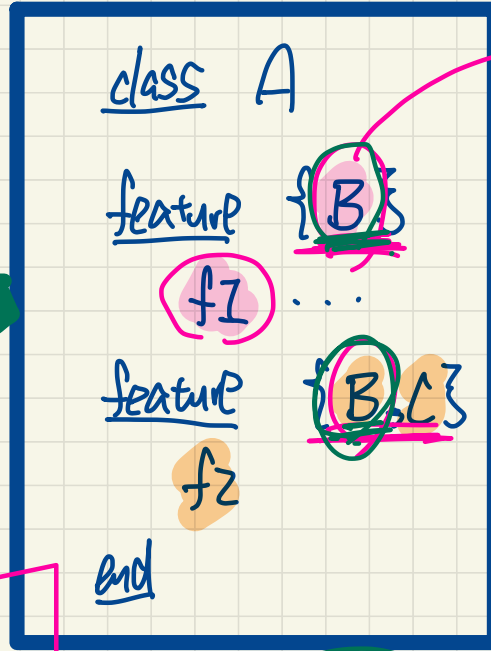
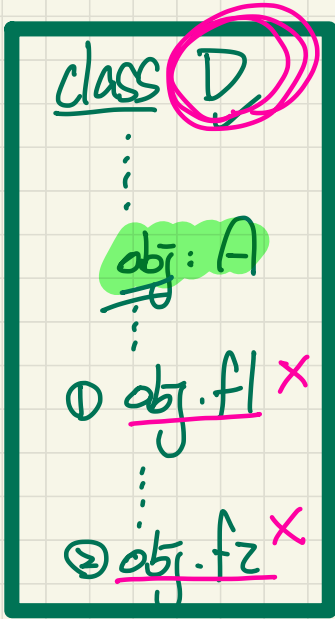


EECS3311 Software Design (Fall 2020)

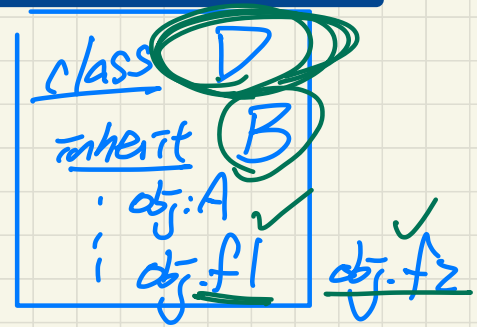
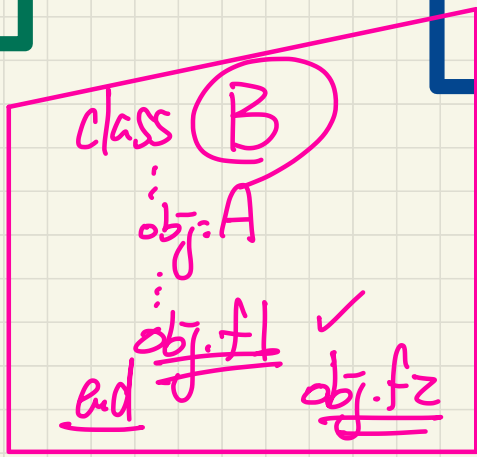
Q&A - Lecture Series W3

Tuesday, September 29



exported to B and B's subclasses

A pink arrow originates from the circled 'B' in the class A diagram and points towards the text 'exported to B and B's subclasses'.



Supplier

```

class Foo [Ch]
:
ad

```

Annotations: A red circle highlights the 'Ch' in the class signature. Two pink arrows point from the 'Ch' to the word 'CHAR' written to the right.

client

```

class BAR [H] → CHAR
:
obj: Foo [STRING] ✓
obj2: Foo [H] ✓
      CHAR

```

Annotations: A red circle highlights the 'H' in the class signature. A blue arrow points from the 'H' to the word 'CHAR' written to the right. The 'obj2' line has a red slash through the 'H' and a checkmark.

client2

```

class HA
:
obj: BAR []
      ↓
      CHARACTER

```

Annotations: A red circle highlights the '[' in the class signature. A blue arrow points from the '[' to the word 'CHARACTER' written below.

class Stack [G] \hookrightarrow ded.

imp: ARRAY [G] \hookrightarrow usage

top: G \rightarrow usage

ensure

Result \sim imp [imp. count]

Two independent aspects:

(1) Generic parameter
(type of items stored in the collection)

(2) Contracts / spec of behaviour
 \hookrightarrow not dependent on the type of items.

```
class DATABASE [K → COMPARABLE, V]
:
:
```

```
db: LINEAR_DB
x [MC_CLASS PERSON]
  ↓
  [INTEGER
  STRING]
  ↓
  HASHABLE
  ↘ hash: INTEGER
```

```
class MC_CLASS
inherit
COMPARABLE
end
```



decl

decl

```
class LINEAR_DB [K → {COMPARABLE, HASHABLE}, V]
inherit DATABASE [K, V]
:
feature
values: HASH_TABLE [V, K]
```

usage: k must be comparable

usage: k must be HASHABLE



```
class HASH_TABLE
[V, K → HASHABLE]
:
:
```

is-less-than

HASHABLE

hash: INTEGER

values: