

USE: c:/mg/dbs-bib-db/dbs-bib-db.use

File Edit State View Help

OCLE

BibDB

- Classes
 - BUCH
 - DESKRIPTOR
 - STUDENT
 - AUTOR
 - AUSLEIHE
- Associations
 - BD
 - BA
- Invariants
- Pre-/Postconditions

Class diagram

BUCH

- Doknr : String
- Titel : String
- Verlag : String
- Ort : String
- Jahr : Integer

DESKRIPTOR

- Wort : String

AUTOR

- AName : String

AUSLEIHE

- Datum : String

STUDENT

- Matnr : Integer
- SName : String
- Fach : String
- SemAnz : Integer

Object diagram

b1:BUCH

b2:BUCH

b3:BUCH

d1:DESKRIPTOR

d2:DESKRIPTOR

d3:DESKRIPTOR

d4:DESKRIPTOR

a1:AUTOR

a2:AUTOR

a3:AUTOR

s1:STUDENT

s2:STUDENT

s3:STUDENT

b1 s1:AUSLEIHE

b1 s2:AUSLEIHE

b2 s2:AUSLEIHE

Evaluate OCL expression

Enter OCL expression:

STUDENT.allInstances()

Result:

Set{@s1,@s2,@s3}: Set(STUDENT)

Evaluate

Browser

Clear

Evaluate OCL expression

Enter OCL expression:

STUDENT.allInstances().Fach

Result:

Bag('INF','INF','PHYS'): Bag(String)

Evaluate

Browser

Clear

Evaluate OCL expression

Enter OCL expression:

STUDENT.allInstances().buch.autor.AName

Result:

Bag('Aho','Ullman','Ullman','Ullman'): Bag(String)

Evaluate

Browser

Clear

Evaluate OCL expression

Enter OCL expression:

s2.buch

Result:

Set{@b1,@b2}: Set(BUCH)

Evaluate

Browser

Clear

Evaluate OCL expression

Enter OCL expression:

s2.buch.autor

Result:

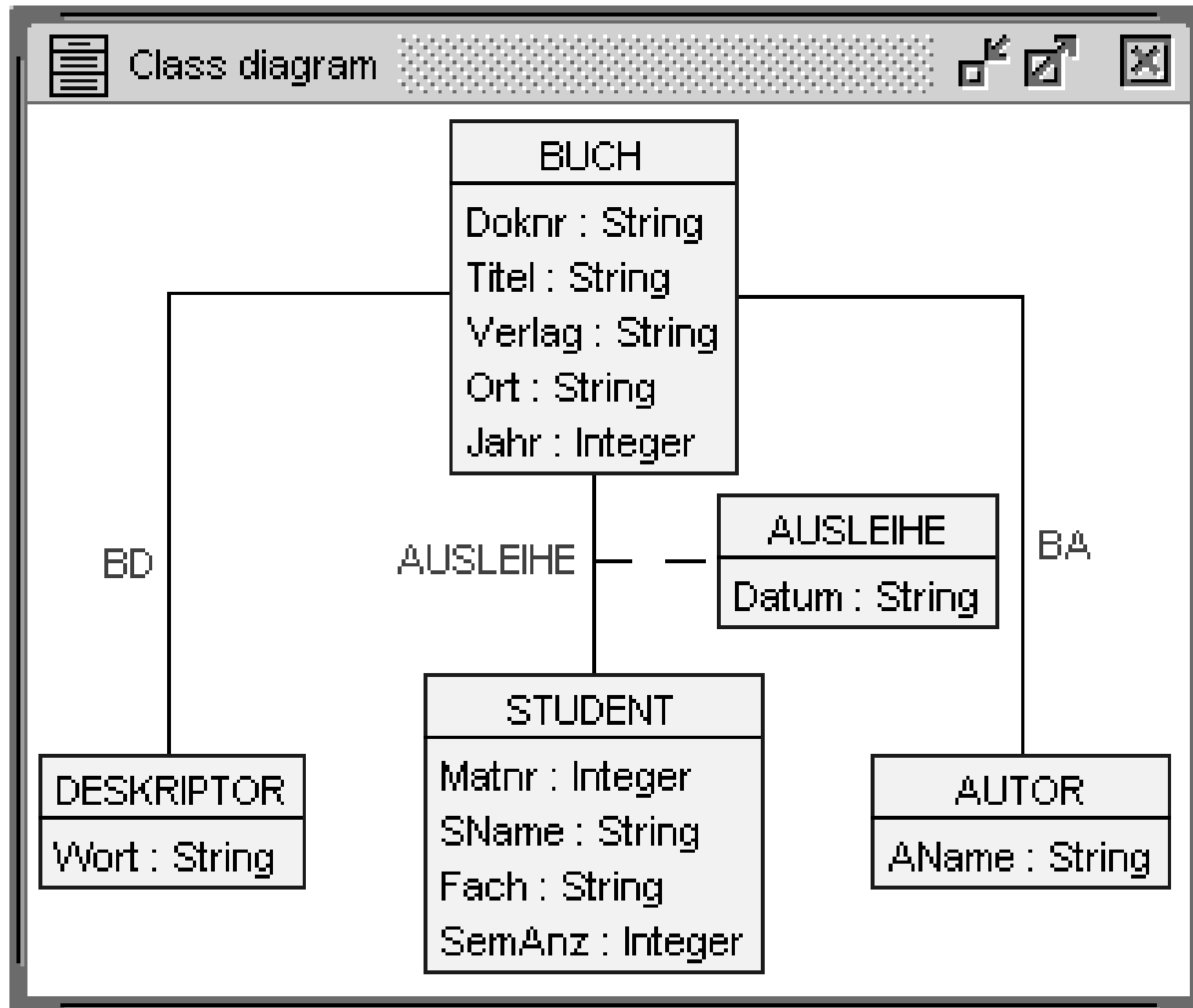
Bag{@a1,@a2,@a2}: Bag(AUTOR)

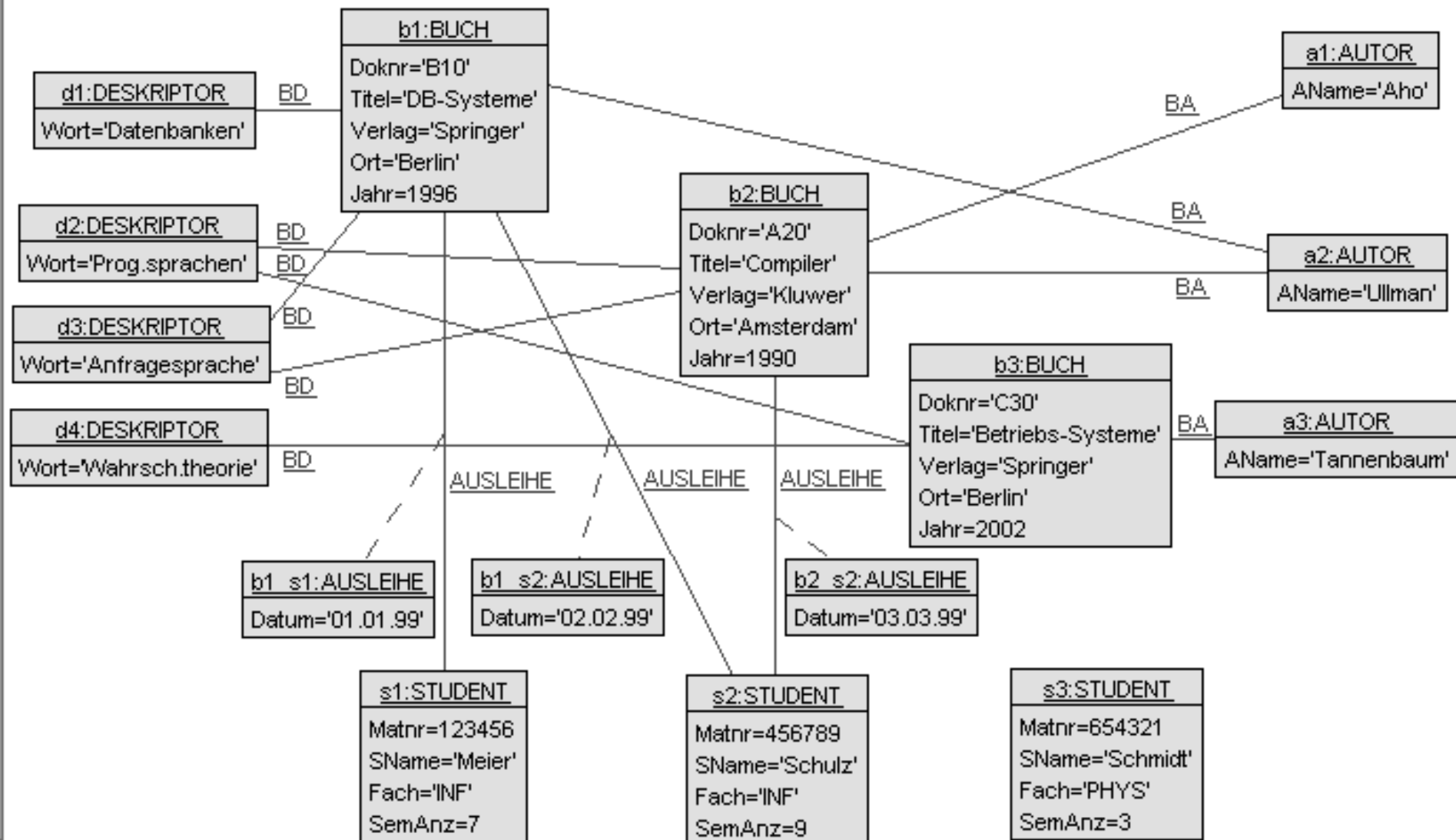
Evaluate

Browser

Clear

Ready.





```
class BUCH
attributes
  Doknr:String
  Titel:String
  Verlag:String
  Ort:String
  Jahr:Integer
end

class DESKRIPTOR
attributes
  Wort:String
end

class STUDENT
attributes
  Matnr:Integer
  SName:String
  Fach:String
  SemAnz:Integer
end

class AUTOR
attributes
  AName:String
end
```

```
association BD between
  BUCH [0..*] role buch
  DESKRIPTOR [0..*] role deskriptor
end

associationclass AUSLEIHE between
  BUCH [0..*] role buch
  STUDENT [0..*] role student
attributes
  Datum:String
end

association BA between
  BUCH [0..*] role buch
  AUTOR [0..*] role autor
end
```

```
!create s1:STUDENT  
!set s1.Matnr:=123456  
!set s1.SName:='Meier'  
!set s1.Fach:='INF'  
!set s1.SemAnz:=07
```

```
!create s2:STUDENT  
!set s2.Matnr:=456789  
!set s2.SName:='Schulz'  
!set s2.Fach:='INF'  
!set s2.SemAnz:=09
```

```
!create s3:STUDENT  
!set s3.Matnr:=654321  
!set s3.SName:='Schmidt'  
!set s3.Fach:='PHYS'  
!set s3.SemAnz:=03
```

```
!create d1:DESKRIPTOR  
!set d1.Wort:='Datenbanken'
```

```
!create d2:DESKRIPTOR  
!set d2.Wort:='Prog.sprachen'
```

```
...
```

```
...
```

```
!insert (b1,a2) into BA  
!insert (b2,a1) into BA  
!insert (b2,a2) into BA  
!insert (b3,a3) into BA
```

```
!create b1_s1:AUSLEIHE between (b1,s1)  
!set b1_s1.Datum:='01.01.99'
```

```
!create b1_s2:AUSLEIHE between (b1,s2)  
!set b1_s2.Datum:='02.02.99'
```

```
!create b2_s2:AUSLEIHE between (b2,s2)  
!set b2_s2.Datum:='03.03.99'
```