

An instance of class Chapter

a0

```

number 0 Chapter
title null prev null
getNumber() getTitle() getPrev()
setNumber(int) setTitle(String)
setPrevious(Chapter)
Chapter(int, String)

```

The only way to initialize the fields is through calls on the setter methods.

We add a **constructor** —a new kind of method— to allow us to indicate initialization of fields in the new-expression.

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The constructor

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```

number 0 Chapter
title null prev null
getNumber() getTitle() getPrev()
setNumber(int) setTitle(String)
setPrevious(Chapter)
Chapter(int, String)

```

Purpose of a constructor: initialize some or all of the fields of a newly created instance during evaluation of a new-expression.

~~int void~~ A parameter for each field for which a value is to be given in the new-expression

/** Constructor: an instance with number n, title t, and previous chapter null. */

```

public Chapter(int n, String t) {
    number= n;
    title= t;
}

```

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The new expression

a0

```

number 1 Chapter
title "Intro"
prev null
Chapter(int, String)

```

default values
integral type: 0
float/double: 0.0
boolean: false
class-type: null

/** Constructor: an instance with number n, title t, and previous chapter null. */

```

public Chapter(int n, String t) {
    number= n; title= t;
}

```

new Chapter(1, "Intro") a0

Step 1. Create (or draw) a new object of class Chapter, with default values for the fields.

Step 2. Execute the constructor call.

Step 3. Yield as value of the new-expression the name of the new object.

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