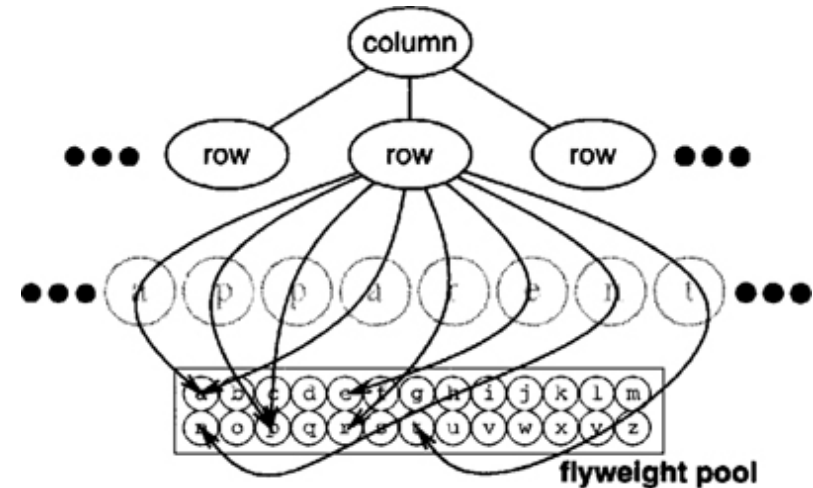
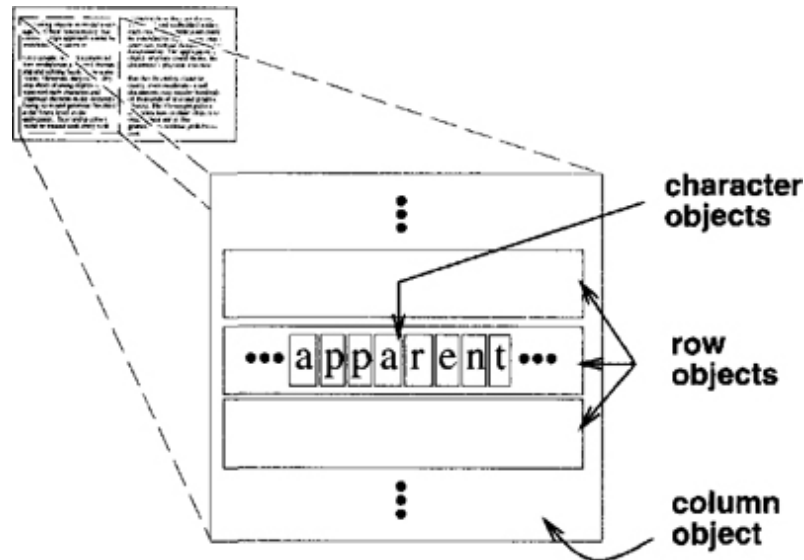


Flyweight

Flyweight

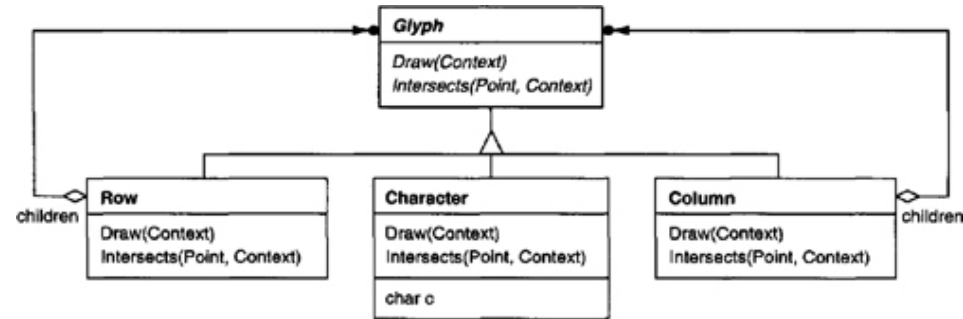
- to represent entities that are normally **too plentiful** to represent with objects.
- GoF example: a document editor can create a Flyweight **for each letter of the alphabet**:



Each flyweight stores a character code (**intrinsic**, **shareable state**), but its coordinate position in the document and its typographic style can be determined from the text layout algorithms (**extrinsic state**)

Flyweight

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Flyweight vs pooling

Pooling:

- exclusive access to item - we *rent, use* and *return*
- we can't own - it makes pooling counter-productive

Flyweight:

- shared access - intrinsic state is immutable
- we can own (and probably will) - to extend it with extrinsic state

Flyweight - example

- state-less, sherable **IoTDevice** instances that are heavy to initialize or in memory usage. And/or there are so many duplicated
- used by "context" that stores external state to be used by shared devices

