

bibliography

March 23, 2022

```
[1]: class Book:
    def __init__(self, title, author, year, key=None):
        self.title = title
        self.author = author
        self.year = year
        if key is None:
            key = self._create_key()
        self.key = key

    def _create_key(self):
        last_name = self.author.split(' ')[-1]
        return f'{last_name}{self.year}'

    def __repr__(self):
        return f'Book({self.title!r}, {self.author!r}, {self.year}, key={self.
↪key!r})'

    def to_latex(self):
        return fr"""\bibitem{{{self.key}}}
{self.author} ({self.year}) \emph{{{self.title}}}"

    def to_html_line(self):
        return fr"""      <tr><td>{self.author}</td><td>{self.year}</td><td>{self.
↪title}</td></tr>"""

class Bibliography:
    def __init__(self, list_of_book):
        self.list_of_book = list_of_book

    def __repr__(self):
        return f'Bibliography({self.list_of_book!r})'

    def to_latex(self):
        s = [book.to_latex() for book in self.list_of_book]
        s = '\n\n'.join(s)
        return fr"""\begin{{thebibliography}}{{9}}
{s}
```

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\end{thebibliography}}
"""

def filter_by_year(self, the_year):
    return Bibliography([book for book in self.list_of_book
                          if book.year==the_year])

def to_html(self):
    s = [book.to_html_line() for book in self.list_of_book]
    s = '\n'.join(s)
    return fr"""<table>
<thead>
  <tr> <th>Auteur</th><th>Titre</th><th>Année</th></tr>
</thead>
<tbody>
{s}
  </tbody>
</table>
"""

def _repr_html_(self):
    return self.to_html()

@property
def number_of_books(self):
    return len(self.list_of_book)

```

```

[2]: book1 = Book("A very nice book", "F. Dupont", 2014)
      book2 = Book("A very smart book", "A. Einstein", 1923)
      book3 = Book("A very stupid comics", "D. Duck", 1937)

      print(book1)
      print(book1.to_latex())

```

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Book('A very nice book', 'F. Dupont', 2014, key='Dupont2014')
\bibitem{Dupont2014}
F. Dupont (2014) \emph{A very nice book}

```

```

[3]: bibliography = Bibliography([book1, book2, book3])
      print(bibliography.to_latex())

```

```

\begin{thebibliography}{9}
\bibitem{Dupont2014}
F. Dupont (2014) \emph{A very nice book}

\bibitem{Einstein1923}
A. Einstein (1923) \emph{A very smart book}

```

```

\bibitem{Duck1937}
D. Duck (1937) \emph{A very stupid comics}
\end{thebibliography}

```

```
[4]: bibliography
```

```
[4]: Bibliography([Book('A very nice book', 'F. Dupont', 2014, key='Dupont2014'),
Book('A very smart book', 'A. Einstein', 1923, key='Einstein1923'), Book('A very
stupid comics', 'D. Duck', 1937, key='Duck1937')])
```

```
[5]: print(bibliography.to_html())
```

```

<table>
  <thead>
    <tr> <th>Auteur</th><th>Titre</th><th>Année</th></tr>
  </thead>
  <tbody>
    <tr><td>F. Dupont</td><td>2014</td><td>A very nice book</td></tr>
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```