1 History

v0.1.7: Small patch for Vignette macro (see [fr] documentation)
v0.1.6: Small patches for displayskip + pas-tableur (see [fr] documentation)
v0.1.5: New macros for boxes with tcolorbox (see [fr] documentation)
v0.1.4: Create a SMS conversation
v0.1.3: Environment for exercise(s) (in french doc)
v0.1.2: Pencil of skills
v0.1.1: Skills table (only french for the moment...)
v0.1.0: Initial version
The package customenvs

2.1 Idea

The idea is to propose some classics environments with customizations (some are, for the moment, only in french):

- write in `multicols`, with spacings enhancements;
- present answers for a `MCQ`;
- create a list with `chosen items` (randomly or by numbers);
- present a skill table.

The globa idea is to propose user-friendly environments, with explicit customizations, without using verbose syntax; but there's other solutions, using for example `\vspace` ou `\setlength` or `spacingtricks` package.

2.2 Loading

The package loads within the preamble with `\usepackage{customenvs}`. Loaded packages are

- `xstring`, `simplekv`, `listofitems`, `randomlist` and `xintexpr`;
- `enumitem`;
- `multicol`;
- `tabulararray`;
- `fontawesome5`;

Due to limitations, `enumitem/multicol/tabulararray/fontawesome5` can be unloaded by `customenvs` (user must load them manually) via options:

- `{noenum}`;
- `{nomulticol}`;
- `{notblr}`;
- `{nofa}`;

\begin{verbatim}
%with all packages
\usepackage{customenvs}

%with option to no load some packages
\usepackage[option(s)]{customenvs}
\end{verbatim}
3 Answers for a MCQ

3.1 Idea

The idea is to propose an environment to present answers for a MCQ with \texttt{tabulararray} (and not \texttt{multicol}). It’s possible to use 2, 3 or 4 answers (and with 4 answers it’s possible to use 2 columns.)

```
\texttt{\textbackslash{AnswersMCQ}[options]{list of answers}\textbackslash{tblr options}}
```

The available \texttt{options} are:

- Width : \texttt{0.99\linewidth} by default ;
- Lines : \texttt{false} by default ;
- \texttt{SpaceCR} for Columns/Rows spacing, within \texttt{col/row} or \texttt{global} : \texttt{6pt/2pt} by default ;
- \texttt{NumCols}, 2 or 4 : \texttt{4} by default ;
- \texttt{Labels} for the labels : \texttt{a.} by default :
  - with \texttt{a} to \texttt{enumerate} \texttt{a b c d} ;
  - with \texttt{A} to \texttt{enumerate} \texttt{A B C D} ;
  - with \texttt{1} to \texttt{enumerate} \texttt{1 2 3 4} ;
- \texttt{FontLabels} : \texttt{\bfseries} by default ;
- \texttt{SpaceLabels} : \texttt{\kern5pt} by default ;
- \texttt{Swap}, for ACBD instead of ABCD : \texttt{false} by default.

The list of answers must be given within \texttt{answerA § answerB § ...}. Specific options for \texttt{tblr} are given between last optionnal argument, between \texttt{<...>}.

3.2 Examples

```
\texttt{\%default output}
\texttt{\textbackslash{AnswersMCQ}{Answer A § Answer B § Answer C § Answer D}}
\hspace{1cm} a. Answer A \hspace{1cm} b. Answer B \hspace{1cm} c. Answer C \hspace{1cm} d. Answer D

\texttt{\textbackslash{AnswersMCQ}[Lines]{Answer A § Answer B § Answer C § Answer D}}
\hspace{1cm} a. Answer A \hspace{1cm} b. Answer B \hspace{1cm} c. Answer C \hspace{1cm} d. Answer D

\texttt{\textbackslash{AnswersMCQ}[Lines,Labels=(1.),SpaceLabels={~~~}]{Answer A § Answer B § Answer C}}
\hspace{1cm} (1.) Answer A \hspace{1cm} (2.) Answer B \hspace{1cm} (3.) Answer C

\texttt{\textbackslash{AnswersMCQ}[Labels={A.},FontLabels={\color{red}\bfseries}]{Answer A § Answer B § Answer C § Answer D}}
\hspace{1cm} A. Answer A \hspace{1cm} B. Answer B \hspace{1cm} C. Answer C \hspace{1cm} D. Answer D

\texttt{\textbackslash{AnswersMCQ}[Labels={1.},FontLabels={\color{red}\bfseries}]{Answer A § Answer B § Answer C § Answer D}}
\hspace{1cm} 1. Answer A \hspace{1cm} 2. Answer B \hspace{1cm} 3. Answer C \hspace{1cm} 4. Answer D
```
<table>
<thead>
<tr>
<th>A.</th>
<th>Answer A</th>
<th>C.</th>
<th>Answer C</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.</td>
<td>Answer B</td>
<td>D.</td>
<td>Answer D</td>
</tr>
<tr>
<td>a.</td>
<td>Answer A</td>
<td>c.</td>
<td>Answer C</td>
</tr>
<tr>
<td>b.</td>
<td>Answer B</td>
<td>d.</td>
<td>Answer D</td>
</tr>
<tr>
<td>a.</td>
<td>( \frac{1}{x} )</td>
<td>c.</td>
<td>(-2x^2 + 5)</td>
</tr>
</tbody>
</table>
4 List avec with picked elements (random or not)

4.1 Global use

The idea is to:

- create a list of items, the base for choices;
- print the list with picked items.

\CreateItemsList{list}{macro}{listname}

\ListItemsChoice[keys]{macro}{listname}(numbers)<enumitem options>

The available keys are:

- **Type**: enum or item;
- **Random**: false by default.

The second argument, mandatory and between {...} is the macro for the list.
The third argument, mandatory and between {...} is the name of the list.
The fourth argument, mandatory and between (...) give:

- the number of random items to display, with Random=true;
- the numbers of picked items, within num1,num2,...

The last argument, optional and between <...> gives specific options to enumitem environment.
Controls are done:

- to verify that the list doesn’t exist (for the creation);
- to verify that that the list still exist (for the display).

4.2 Examples

%creation of list ListItems, with macro \mylistofitems
\CreateItemsList%
{Answer A,Answer B,Answer C,Answer D,Answer E,Answer F,Answer G,Answer H}%
{\mylistofitems}{ListItems}

%items random
\ListItemsChoice[Random]{\mylistofitems}{ListItems}(5)
1. Answer A
2. Answer F
3. Answer B
4. Answer D
5. Answer C

%items picked
\ListItemsChoice{\mylistofitems}{ListItems}(1,4,3,8,2)
1. Answer A
2. Answer D
3. Answer C
4. Answer H
5. Answer B
\%creation of list ListItemsB, with macro \mylistofitemsb

\CreateItemsList%
\{$\int_0^1 x^2 \, dx$},\{$\int_0^1 x^3 \, dx$},\{$\int_0^1 x^4 \, dx$},...\%
\{\mylistofitemsb\}{{ListItemsB}}

\%items picked
\ListItemsChoice[Type=item]{\mylistofitemsb}{{ListItemsB}}(7,2,1,5,3)<label=\$--\$

-- $\int_0^1 x^8 \, dx$
-- $\int_0^1 x^3 \, dx$
-- $\int_0^1 x^2 \, dx$
-- $\int_0^1 x^6 \, dx$
-- $\int_0^1 x^4 \, dx$
5 Pencil of skills

5.1 Global use

The idea is to:

- present a list of categories and skills;
- present it like a pencil.

The code (within CC-BY-SA 4.0 license) is adapted from:

https://tex.stackexchange.com/questions/504092/replicating-a-fancy-bordered-text-style-in-latex/504145#504145

\PencilSkills[\textit{keys}][\textit{tikz options}]{\textit{listofskills}}

The style is globally fixed, but there’s some customization available.

5.2 The macro

Available keys are:

- **FontCateg**: font for the categories;
- **FontBlock**: font for the skills;
- **Colors**: list of category’s colors
  
  BgCateg1/FgCateg1,BgCateg1/FgCateg1,...
  (if FgCateg1 est missing, black is used)
- **BlockWidth**: width of skill’s block;
- **Scale**: global scale
- **BlackWhite**: boolean for B&W.

The second argument, optional and between <...> gives specific options to \textit{enumerate} environment.

The last argument, mandatory and between (...) give the list of categories/skills, within Categ1/ListSkills1,Categ2/ListSkills2,...

5.3 Examples

\%default output
\PencilSkills{Search/Skill 1\ Skill 2,Model/{Skill 1\ Skill 2}}
\texttt{PencilSkills}[Scale=0.75] \%
  \{Search/Skill 1\ Skill 2,Model/{Skill 1\ Skill 2}\};\%
  Represent/{Skill 1\ Skill 2},Calculate/{Skill 1\ Skill 2};\%
  Reason/{Skill 1\ Skill 2},Communicate/{Skill 1\ Skill 2}\}

\texttt{PencilSkills}[Scale=0.75,BlockWidth=3cm] <rotate=90>\{
  Search/Skill 1\ Skill 2,Model/{Skill 1\ Skill 2}\}
\hspace{1cm}
\texttt{PencilSkills}[Scale=0.75,BlockWidth=3cm] <rotate=-90>\{
  Search/Skill 1\ Skill 2,Model/{Skill 1\ Skill 2}\}
\hspace{1cm}
\texttt{PencilSkills}[Scale=0.75,BlockWidth=3cm,BlackWhite] <rotate=45>\{
  Search/Skill 1\ Skill 2,Model/{Skill 1\ Skill 2}\}
6 SMS conversation

6.1 Global use

The idea is to present a conversation of SMS.

\begin{ChatSMS}[keys]{name}
\InSMS(*){time}{msg}
\OutSMS*(*){time}{msg}
\end{ChatSMS}

The style is globally fixed, but there's some customization available.

6.2 The environment

Available keys are :

- **height** : height of the window (auto or specific) ; **auto** by default
- **width** : width of the window ; **7cm** by default
- **margin** : margin (L or R) for the bubble **1.5cm** by default
- **color** : main color (banner) ; **teal!75!cyan!75!white** by default ;
- **colback** : color for background ; **lightgray!5** by default
- **colorin** : color for incoming SMS ; **lime!25** by default
- **colorout** : color for outgoing SMS ; **teal!25** by default
- **writetxt** : text of sending zone ; **Write** by default
- **fonttxt** : bubble’s font ; **\normalfont** by default
- **avatar** : avatar of contact ; **\faAddressCard** by default
- **dispavatar** : boolean for displaying avatar near the bubbles ; **false** by default
- **blackwhite** : boolean pour black&white. **false** by default

The argument, mandatory and between (...) give the name of the contact.

6.3 Macros for the bubbles

Regarding the bubble creation commands, \InSMS and \OutSMS:

- the starred version does not display the checkmarks of good reception;
- the first mandatory argument is the time to display ;
- the second mandatory argument is the message to display (including multi-lines).
6.4 Examples

\begin{ChatSMS}
\texttt{[width=6cm,fonttxt=\sffamily,height=10cm,avatar=img/android,dispavatar]{CP}}
\texttt{\OutSMS{19:23}{Hi !}}
\texttt{\InSMS{19:23}{How are you ?}}
\texttt{\OutSMS{19:25}{Wanna help ??}}
\texttt{\InSMS{19:28}{Yes, I need to compute $\mathsf{\int_{0}^{1} x^2e^{-x}\,dx}$}}
\texttt{\OutSMS{19:30}{Take care !!}}
\end{ChatSMS}
Hi!

Hi!
How are you?

Just a problem with a math question…

Wanna help??

Yes, I need to compute $\int_{0}^{1} x^2e^{-x}\,dx$…

Take care!!