

§ Template Documentation §

Section 1: Basic Information of This Template Class

Despite this *SEU-ML-Assign* class is dedicated to Southeast University as the Machine Learning assignment \LaTeX template both for teachers and students, it can also be used for other schools. In the near future, it will eventually become an elegant template for all assignment requirements.

Package Class Name	<code>seu-ml-assign</code>
Version	1.1 (2022/03/22)
Description	\LaTeX Template for Southeast University Machine Learning Assignment
Author	Teddy van Jerry (Wuqiong Zhao)
Maintainer	Teddy van Jerry (Wuqiong Zhao)
GitHub Repository	https://tvj.one/ml-tex
Issues	https://tvj.one/ml-tex/issues
CTAN Package	https://www.ctan.org/pkg/seu-ml-assign
Open Source License	MIT License (https://tvj.one/ml-tex/blob/master/LICENSE)

You can contact me at me@tvj.one for support.

Section 2: Class Options

To use this template, put `seu-ml-assign.cls` file under the same directory with your main `tex` file.

```
\documentclass{seu-ml-assign} % SEU Machine Learning Assignment Template
```

The page size is A4 paper. There are 8 supported options:

Option	Description	Default
<code>solution</code>	Write solutions (for students).	•
<code>problem</code>	Write problem sets (for instructors).	
<code>oneside</code>	One-sided document.	•
<code>twoside</code>	Two-sided document.	
<code>9pt</code>	Set font size as 9 points.	
<code>10pt</code>	Set font size as 10 points.	•
<code>11pt</code>	Set font size as 11 points.	
<code>12pt</code>	Set font size as 12 points.	

For example, a 10pt, two-sided document for instructors to create an assignment consisting of problem sets should use

```
\documentclass[10pt,twoside,problem]{seu-ml-assign} % The 10pt option can be omitted.
```

With the `twoside` option, the header will switch style every page, as is the case in this documentation. In contrast, the sample file uses the `oneside` option.

There are several differences between the `solution` mode and `problem` mode, including the preset texts on the document (for example the student name is not shown in the `problem` mode) and some properties can only be used with the `problem` mode which will be elaborated on in §3.2.

Section 3: Document Properties

(1) Fields There are several fields to set. The `\mainproblem{}` can be left empty. Consider the following example used in the sample file:

<code>\title{Assignment}</code>	<code>% Document Type: assignment, quiz, etc.</code>
<code>\author{Teddy van Jerry}</code>	<code>% Your Name</code>
<code>\studentID{61520522}</code>	<code>% Your Student ID</code>
<code>\instructor{TeX - LaTeX Stack Exchange}</code>	<code>% The Name of Your Instructor</code>
<code>\date{\today}</code>	<code>% The Submission or Release Date</code>
<code>\duedate{20:00 March 21, 2022}</code>	<code>% The Time the Assignment is Due</code>
<code>\assignno{1}</code>	<code>% Assignment Number</code>
<code>\semester{SEU --- 2022 Spring}</code>	<code>% Semester</code>
<code>\mainproblem{Linear Algebra}</code>	<code>% The Main Problem or Topic</code>

With these fields set, you can use the command `\maketitle` to print the title. At the same time, the metadata for the PDF document is automatically set.

(2) Problem Mode Only Properties One of the fields `\author{}` and `\instructor{}` can be omitted or set as empty provided that they are the same.

Section 4: Section Title (Problem) Settings

(1) Normal Title The title of a problem can be set as `\problem{This is a Section Title}` or uses a lower level command `\section{This is a Section Title}`. There are two slight different between these two ways.

- The name in the table of contents (ToC) using `\problem{}` will add the section/problem number before the section/problem title name.
- The optional argument of `\section{}` will set the name in the ToC which is by default in `LATEX` in the format of `\section[<ToC Name>]{<Section Title Name>}`. By contrast, the optional argument in `\problem{}` sets the problem points as is detailed in §4.3.

`\section[\thesection:~<Title>]{<Title>}` is equivalent to `\problem{<Title>}` or `\problem[]{<Title>}`.

(2) Unnumbered Title Use the `\section*{}` or `\problem*{}` to get an unnumbered section.

This is an Unnumbered Problem

This title will also not appear in the ToC or bookmarks of the PDF.

(3) Problem with Points The points of a problem can be set using command `\problempts{xxx}` before calling the `\section{}` command. These two commands can be simplified to `\problem[xxx]{}`. For example, using the command `\problem[15]{This is a Problem Worth 15 Points}` will have:¹

Problem 1: This is a Problem Worth 15 Points

(15 points)

Note that if the point is an empty string, the point information will not be shown.

¹This title is actually faked in this documentation because I do not want the ToC of this documentation contaminated. But it will look the same.

(4) **Long Title Compatibility** There is also no problem if the section title is too long.²

Problem 2: I Don't Think that Anyone Will Enjoy Themselves Seeing a Very Very Long Problem That is Worth Twenty Points in this Machine Learning Course

(20 points)

(5) **Section Title Name** The name of the section (default name as `problem`) can be changed by using `\renewcommand{\sectionheadname}{Name}`.

(6) **Section Number** The number of the section can be changed, for example `\texttt{\setproblem{4}}` will make the next section number be 5. For experienced L^AT_EX users to understand, this command actually change the section counter.

(7) **Solution Declaration** You can use `\startsolution` to declare you start writing the solution. This will reset the section number and it is especially useful when your document contains problems and solutions as two separate parts. There is an option `print` and if you use `\startsolution[print]` you will get:

SOLUTION

and the word `SOLUTION` can be changed using command `\renewcommand{\solutionname}{Other Name}`.

Section 5: Subsection Title (Sub Problem) Settings

(1) **Normal Title** This is a normal title using command `\subproblem{Normal Title}` or its equivalent command `\subsection{Normal Title}`.

(2) Use `\subproblem{}` or `\subsection{}` if only the sub problem number is required (like this line).

(3) **Subsection Number** Similar to `\setproblem{}`, there is also `\setsubproblem{}`.

Section 6: Other Tools

(1) **Equation Numbering** The equation number is within the section (problem), for example

$$\det(\mathbf{A}) = 1 \times \begin{vmatrix} -5 & 3 \\ -6 & 4 \end{vmatrix} - (-3) \times \begin{vmatrix} 3 & 3 \\ 6 & 4 \end{vmatrix} + 3 \times \begin{vmatrix} 3 & -5 \\ 6 & -6 \end{vmatrix} = 1 \times (-2) + 3 \times (-6) + 3 \times 12 = 16. \quad (6.1)$$

(2) **Maths Packages** Maths Package `mathtools`, `amssymb`, `amsthm`, `bm` and `nicematrix` are automatically loaded. The `nicematrix` package is especially powerful in terms of writing a matrix. You can find its documentation at <https://ctan.org/pkg/nicematrix>.

(3) **Fancy Box** A fancy box has been defined.

This is a Fancy Box

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Proin viverra massa rutrum felis vulputate, ac faucibus velit accumsan. Vivamus aliquet felis nec interdum sollicitudin. Nullam ornare eu velit id cursus. Maecenas a sodales velit, vel cursus magna. Cras lobortis venenatis.

You can use the following code to generate it.

²This title is also faked.

```
\begin{fancybox}{This is a Fancy Box}
  Lorem ipsum dolor sit amet, consectetur adipiscing elit. Proin viverra massa
  ↳ rutrum felis vulputate, ac faucibus velit accumsan. Vivamus aliquet felis nec
  ↳ interdum sollicitudin. Nullam ornare eu velit id cursus. Maecenas a sodales
  ↳ velit, vel cursus magna. Cras lobortis venenatis.
\end{fancybox}
```

There is also a notice box:

This is a Notice Box

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Proin viverra massa rutrum felis vulputate, ac faucibus velit accumsan. Vivamus aliquet felis nec interdum sollicitudin. Nullam ornare eu velit id cursus. Maecenas a sodales velit, vel cursus magna. Cras lobortis venenatis.

You can use the following code to generate it.

```
\begin{notice}{This is a Notice Box}
  Lorem ipsum dolor sit amet, consectetur adipiscing elit. Proin viverra massa
  ↳ rutrum felis vulputate, ac faucibus velit accumsan. Vivamus aliquet felis nec
  ↳ interdum sollicitudin. Nullam ornare eu velit id cursus. Maecenas a sodales
  ↳ velit, vel cursus magna. Cras lobortis venenatis.
\end{notice}
```

Appendix A: Known Issues

- The section title background height may not be accurate;

If you find more issues, please report them on <https://tvj.one/ml-tex/issues>.

Appendix B: Change Log

v1.1 2022/03/22 – Bug Fix and Enhancement

1. Add `\mainproblem{}` command;
2. Support for `\section*{}`, `\problem*{}`, `\subsection*{}` and `\subproblem*{}`;
3. Fix ToC/Bookmarks problem;
4. Set footnote line style;

5. Add the `twoside` option.

v1.0 2022/03/19 – Initial Version

1. Initial `cls` file in addition to a sample file and documentation;
2. Publish at GitHub and CTAN.

Appendix C: Source Code

The source code of `seu-ml-assign.cls` is listed below.

```
15 \NeedsTeXFormat{LaTeX2e}
16 \ProvidesClass{seu-ml-assign}[2022/02/22 SEU Machine Learning Assignment Template]
17
18 %% Class and Options
19 \def\@@ptsize{10pt} % font size
20 \DeclareOption{9pt}{\def\@@ptsize{9pt}}
21 \DeclareOption{10pt}{\def\@@ptsize{10pt}}
22 \DeclareOption{11pt}{\def\@@ptsize{11pt}}
23 \DeclareOption{12pt}{\def\@@ptsize{12pt}}
24 \def\@@solutionmode{1} % default as the solution mode
```

```

25 \DeclareOption{solution}{\def\@solutionmode{1}} % solution mode
26 \DeclareOption{problem}{\def\@solutionmode{0}} % problem mode
27 \def\@twoside{0} % default as oneside
28 \DeclareOption{oneside}{\def\@twoside{0}} % one-side document
29 \DeclareOption{twoside}{\def\@twoside{1}} % two-side document
30 \ProcessOptions\relax
31 \LoadClass[a4paper, onecolumn, \@ptsizes]{article}
32
33 %% Page Settings
34 \RequirePackage[inner=2.0cm, outer=2.0cm, top=1.2cm, bottom=3.5cm]{geometry}
35 \newcommand{\firstfooteradditionalheight}{2em} % additional height for footer on the
    ↪ first page
36 \hfuzz=.5em % disable false positive of overfull \hbox
37
38 %% Document Properties
39 \global\let\@assignno\@empty
40 \global\let\@semester\@empty
41 \global\let\@studentID\@empty
42 \global\let\@instructor\@empty
43 \global\let\@duedate\@empty
44 \global\let\@author\@empty
45 \global\let\@mainproblem\@empty
46 \newcommand{\@assignno}[1]{\gdef\@assignno{#1}} % Assignment Number
47 \newcommand{\@semester}[1]{\gdef\@semester{#1}} % Semester
48 \newcommand{\@studentID}[1]{\gdef\@studentID{#1}} % Student ID
49 \newcommand{\@instructor}[1]{\gdef\@instructor{#1}} % Instructor
50 \newcommand{\@duedate}[1]{\gdef\@duedate{#1}} % Due Date of the Assignment
51 \newcommand{\@mainproblem}[1]{\gdef\@mainproblem{#1}} % The main problem of the
    ↪ assignment
52
53 %% Fonts and Colors
54 \RequirePackage[T1]{fontenc}
55 \RequirePackage[usenames, dvipsnames]{xcolor}
56
57 %% TikZ Rule
58 \RequirePackage{tikz}
59 \usetikzlibrary{fadings, calc}
60 \newcommand{\tikzrule}[3][\tikz{\fill[#1] (0,0) rectangle (#2,#3);}]
61
62 %% Sections Settings
63 \RequirePackage[explicit]{titlesec} % explained in
    ↪ https://tex.stackexchange.com/a/292307/234654
64 \RequirePackage{suffix}
65 % http://mirrors.ctan.org/macros/latex/contrib/titlesec/titlesec.pdf
66 \pgfdeclarelayer{background}
67 \pgfsetlayers{background, main}
68 \global\let\@problempts\@empty
69 \newcommand{\@problempts}[1]{\gdef\@problempts{#1}} % Points of the Problem
70 \newcommand{\@problemptsprint}{\ifx\@problempts\@empty\else\@problempts~points\fi}
71 \newcommand{\@sectionheadname}{Problem} % Name for the Section (default as 'Problem')
72 % Reference: https://tex.stackexchange.com/a/12269/234654
73 \newcommand{\boxedsection}[4][blue!20]{\%
74     \begin{tikzpicture}[inner sep=0pt, inner ysep=0.3ex]
75         \node[anchor=base west] at (0,0) (counter) {#2};
76         \path let \p1 = (counter.base east) in node[anchor=base west, text
            ↪ width={\textwidth-\x1-#4}] (content)
77             at ($(counter.base east)+(#4,0)$) {#3};
78         \begin{pgfonlayer}{background}
79             \shade[left color=#1, right color=white] let \p1=(counter.north),
            ↪ \p2=(content.north) in
80             (0, {max(\y1, \y2)}) rectangle (content.south east);
81         \end{pgfonlayer}
82     \end{tikzpicture}
83 }

```

```

84 % For numbered section, i.e. \section{}
85 \titleformat{\section}% <command>
86   {\Large\bfseries}% <format>
87   {}% <label>
88   {0pt}% <sep>
89   {\boxedsection{\sectionheadname{} \thesection:}{#1}{0.33em}}% <before-code>
90   [%
91     \vspace{-2.2\baselineskip}\hfill{\normalfont\small\problemptsprint}%
92     \problempts{}% clear the problem points
93   ]% <after-code>
94 % For unnumbered section, i.e. \section*{}
95 \titleformat{name=\section,numberless}% <command>
96   {\Large\bfseries}% <format>
97   {}% <label>
98   {0pt}% <sep>
99   {\boxedsection{}{#1}{0em}}% <before-code>
100  [%
101    \vspace{-2.2\baselineskip}\hfill{\normalfont\small\problemptsprint}%
102    \problempts{}% clear the problem points
103  ]% <after-code>
104 \newcommand{\setproblem}[1]{\ifx#1@empty\else\setcounter{section}{#1}\fi} % force
    ↪ the number of problem
105 \newcommand{\setsubproblem}[1]{\ifx#1@empty\else\setcounter{subsection}{#1}\fi} %
    ↪ force the number of subproblem
106 \newcommand{\problem}[2][\problempts{#1}\section[\thesection:~#2]{#2}]%
107 \WithSuffix\newcommand\problem*[2][\problempts{#1}\section*{#2}]%
108 \newcommand{\solutionname}{Solution}%
109 \newcommand{\startsolution}[1][print]{%
110   \setproblem{0}% reset the section counter
111   \def\startsolutionprintoption{print}
112   \def\startsolutionprintuseroption{#1}
113   \ifx\startsolutionprintuseroption\startsolutionprintoption{%
114     {%
115       \fontfamily{LinuxLibertineT-OsF}\selectfont% select font as Linux
116       ↪ Libertine
117       \centering\LARGE\scshape%
118       \vspace{\baselineskip}%
119       \solutionname{}\[\[-0.2em]%
120     }%
121     \noindent%
122     \tikzrule[WildStrawberry, path fading=west]{.5\textwidth}{.2em}%
123     \tikzrule[WildStrawberry, path fading=east]{.5\textwidth}{.2em}%
124   }\fi%
125 }
126 \titlespacing*{\section}{0em}{2.5\baselineskip}{1\baselineskip}
127 \titleformat{\subsection}[runin]{\large\bfseries}{(\arabic{subsection})}{0.33em}{#1}%
128 \newcommand{\subproblem}[1]{\subsection[(\arabic{subsection}) #1]{#1}}
129 \WithSuffix\newcommand\subproblem*[1]{\subsection*{#1}}
130 \titleformat{\subsubsection}[runin]{}{}{0pt}{(\arabic{subsubsection}. #1)}
131 %% Maths Settings
132 \RequirePackage{mathtools}
133 \RequirePackage{amssymb}
134 \RequirePackage{amsthm} % proof environment and others
135 \RequirePackage{bm} % \bm command
136 \RequirePackage{nicematrix}
137 \numberwithin{equation}{section}
138
139 %% Code Block Settings
140 \RequirePackage{listings}
141 \definecolor{dkgreen}{rgb}{0,0.5,0}
142 \definecolor{gray}{rgb}{0.5,0.5,0.5}
143 \definecolor{mauve}{rgb}{0.58,0,0.82}
144 \lstset{

```

```

145     numbers=left,
146     frame=tb,
147     aboveskip=3mm,
148     belowskip=3mm,
149     showstringspaces=false,
150     columns=fixed,
151     framerule=1pt,
152     rulecolor=\color{gray!35},
153     backgroundcolor=\color{gray!5},
154     basicstyle={\ttfamily\small},
155     numberstyle=\footnotesize\color{gray},
156     keywordstyle=\bfseries\color{blue},
157     commentstyle=\color{dkgreen},
158     stringstyle=\color{mauve},
159     breaklines=true,
160     breakatwhitespace=true,
161     tabsize=2,
162     extendedchars=false,
163     postbreak=\mbox{\hspace{-1.4em}\textcolor{purple}{\$\hookrightarrow$}\space}
164 }
165
166 %% Captions Settings
167 \RequirePackage[font=footnotesize,labelfont=bf]{caption}
168
169 %% Color Boxes
170 \RequirePackage[many]{tcolorbox}
171 \RequirePackage{varwidth}
172 \newtcolorbox{fancybox}[2][{enhanced,skin=enhancedlast jigsaw,
173     attach boxed title to top left={xshift=-4mm,yshift=-0.5mm},
174     fonttitle=\bfseries\sffamily,varwidth boxed title=0.7\linewidth,
175     colbacktitle=blue!45!white,colframe=red!50!black,
176     interior style={top color=blue!10!white,bottom color=red!10!white},
177     boxed title style={empty,arc=0pt,outer arc=0pt,boxrule=0pt},
178     underlay boxed title={
179         \fill[blue!45!white] (title.north west) -- (title.north east)
180         -- +(\tcboxedtitleheight-1mm,-\tcboxedtitleheight+1mm)
181         -- ([xshift=4mm,yshift=0.5mm]frame.north east) -- +(0mm,-1mm)
182         -- (title.south west) -- cycle;
183         \fill[blue!45!white!50!black] ([yshift=-0.5mm]frame.north west)
184         -- +(-0.4,0) -- +(0,-0.3) -- cycle;
185         \fill[blue!45!white!50!black] ([yshift=-0.5mm]frame.north east)
186         -- +(0,-0.3) -- +(0.4,0) -- cycle; },
187     title={#2},#1
188 }
189 \newtcolorbox{notice}[2][{enhanced,
190     colframe=blue!50!black,colback=blue!10!white,colbacktitle=blue!5!yellow!10!white,
191     fonttitle=\bfseries,coltitle=black,attach boxed title to top center=
192     {yshift=-0.25mm-\tcboxedtitleheight/2,yshifttext=2mm-\tcboxedtitleheight/2},
193     boxed title style={boxrule=0.5mm,
194     frame code={ \path[tcb fill frame] ([xshift=-4mm]frame.west)
195     -- (frame.north west) -- (frame.north east) -- ([xshift=4mm]frame.east)
196     -- (frame.south east) -- (frame.south west) -- cycle; },
197     interior code={ \path[tcb fill interior] ([xshift=-2mm]interior.west)
198     -- (interior.north west) -- (interior.north east)
199     -- ([xshift=2mm]interior.east) -- (interior.south east) -- (interior.south west)
200     -- cycle; } },
201     title={#2},#1
202 }
203
204 %% Header and Footer
205 \RequirePackage{fancyhdr}
206 \RequirePackage[colorlinks=true,urlcolor=blue,linkcolor=purple,citecolor=red]{hyperref}
207 \setlength{\headheight}{52pt}
208 \setlength{\marginparwidth}{2cm}

```



```

209 \pagestyle{fancy}
210 \if\@twoside0
211   \lhead{
212     \fontfamily{LinuxLibertineT-0sF}\selectfont
213     \if\@@solutionmode1
214       \textsc{\@title~\@assignno} -- \@studentID~\@author
215     \else
216       \textsc{Machine Learning \@title~\@assignno}
217     \fi
218   }
219   \rhead{\thepage}
220   \renewcommand\headrule{\vspace{-0.7em}\tikzrule[BrickRed, path
    ↪ fading=east]{.5\textwidth}{0.3mm}}
221 \else
222   \fancyhf{}
223   \renewcommand\headrule{%
224     \ifodd\thepage
225       \vspace{-0.7em}\tikzrule[BrickRed, path fading=east]{.5\textwidth}{0.3mm}
226     \else
227       \vspace{-0.7em}\hfill\tikzrule[BrickRed, path
    ↪ fading=west]{.5\textwidth}{0.3mm}
228     \fi
229   }
230   \fancyhead[L0]{
231     \fontfamily{LinuxLibertineT-0sF}\selectfont
232     \if\@@solutionmode1
233       \textsc{\@title~\@assignno} -- \@studentID~\@author
234     \else
235       \textsc{Machine Learning \@title~\@assignno}
236     \fi
237     \renewcommand\headrule{\vspace{-0.7em}\tikzrule[BrickRed, path
    ↪ fading=east]{.5\textwidth}{0.3mm}}
238   }
239   \fancyhead[RE]{
240     \fontfamily{LinuxLibertineT-0sF}\selectfont
241     \textsc{Machine Learning \@title~\@assignno}
242   }
243   \fancyhead[LE,RO]{\thepage}
244 \fi
245 \cfoot{}
246 % header and footer style for the first page
247 \fancypagestyle{firstpage}{
248   \renewcommand\headrule{}
249   \lhead{}
250   \rhead{}
251   \cfoot{
252     \fontfamily{LinuxLibertineT-0sF}\selectfont
253     \vspace*{-\firstfooteradditionalheight}
254     \vspace{-1.5em}
255     \tikzrule[purple, path fading=west]{.5\textwidth}{.15em}%
256     \tikzrule[purple, path fading=east]{.5\textwidth}{.15em}
257
258     \footnotesize\centering
259     \if\@@solutionmode1
260       This \MakeLowercase{\@title{}} is due \@duedate{} and the date of
    ↪ submission is \@date.
261     \else
262       This \MakeLowercase{\@title{}} is due \textbf{\@duedate{}} and the
    ↪ version of the problem set is \@date.
263     \fi
264
265     % LaTeX template information
266     \LaTeX{} template for this \MakeLowercase{\@title{}} is
    ↪ \textit{SEU-ML-Assign}

```



```

267         open source at \href{https://tvj.one/ml-tex}{tvj.one/ml-tex} under the MIT
           ↪ License.
268         E-mail \href{mailto:me@tvj.one}{me@tvj.one} for support.
269     }
270 }
271
272 %% Footnote
273 \renewcommand{\footnoterule}{\noindent\tikzrule[SeaGreen, path
           ↪ fading=east]{.4\textwidth}{.1em}}
274 \renewcommand{\footnotesep}{1em}
275
276 %% Title Settings
277 \RequirePackage{tabularx}
278 \RequirePackage{afterpage}
279 \newcommand{\pdftitleadditionalname}{Solution}
280 \makeatletter
281 \renewcommand\maketitle{
282
283     \if\@@solutionmode0
284         \ifx\@instructor\@empty
285             \let\@instructor\@author % author is the instructor (if not specified)
286         \else
287             \ifx\@author\@empty
288                 \let\@author\@instructor % instructor is the author (if not
           ↪ specified)
289             \fi
290         \fi
291     \fi
292
293     \thispagestyle{firstpage}
294     \fontfamily{LinuxLibertineT-0sF}\selectfont % set font as Linux Libertine
295     \enlargethispage{-\firstfooteradditionalheight} % make room for the footer
296     \begin{minipage}{10.5cm}
297         \centering
298         {
299             \fontsize{36}{48}\selectfont
300             \textcolor{Plum}{\scshape Machine Learning}
301         }\\[.5em]
302         {
303             \if\@@solutionmode1
304                 \@studentID~\@author
305                 \qqquad
306             \fi
307             \textit{Instructor:~\@instructor}
308         }
309     \end{minipage}
310     \begin{minipage}{5cm}
311         \vspace{0.7em}
312         \centering
313         {
314             \large
315             \textcolor{BrickRed}{\sffamily \@semester}
316             \vspace{2mm}
317         }
318         \LARGE\@title~{\fontfamily{bch}\selectfont\@assignno}
319     \end{minipage}
320     \\[.3em]
321     \tikzrule[cyan, path fading=east]{\textwidth}{.4em}
322
323     \ifx\@mainproblem\@empty
324         \vspace{2mm}
325     \else
326         \begin{center}
327             \vspace{-1\baselineskip}\color{RoyalPurple!50!black}

```

```
328         \LARGE\textbf{S~\@mainproblem~}\S
329     \end{center}
330 \fi
331
332 \fontfamily{cmr}\selectfont % Computer Modern
333
334 % Set up document meta data
335 % Note that it should be placed here because
336 % by now \@author and \@title have been set.
337 \hypersetup{
338     pdfauthor={\@author},
339     pdftitle={%
340         \@title~\@assignno~
341         \if\@solutionmode1
342             \pdftitleadditionalname{}
343         \fi
344         - Machine Learning%
345     },
346     pdfsubject={Machine Learning},
347     pdfkeywords={%
348         Machine Learning, \@title%
349         \if\@mainproblem\@empty\else%
350             , \@mainproblem
351         \fi
352     },
353     pdfcreator={LaTeX with SEU-ML-Assign class},
354     pdfproducer={LaTeX}
355 }
356 }
357 \makeatother
```