Importing LaTeX Equations into Quizzes

By Omar Al-Sawaeer

الجامعة الألمانية الأردنية
German Jordanian University

Introduction

- LaTex is a popular document typesetting system for typesetting math. With the Moodle LaTex package, one can generate a Moodle XML file containing quiz questions from a document authored using LaTex. The Moodle XML file can then be used to bulk import multiple questions into a question bank in E-Learning.

- To import LaTeX questions into:
  - Compile a PDF and a Moodle XML file.
  - Import your Moodle XML file into your quiz Question bank in E-Learning.

Compiling a PDF and Moodle XML File

- Step 1: Write a LaTeX document: To write a LaTex document, you will need to create a plain text file with the extension .tex. TeX documents can be compiled using a TeX distribution typesetting program, or an online LaTeX editor such as Overleaf.

- There are many TeX distributions available for various operating systems, including:
  - MiKTeX for Windows
  - TeX Live for Linux
  - MacTeX for macOS

- To Write a LaTeX document for import into E-Learning: Use \usepackage{moodle}. When writing Multiple Choice questions in your TeX editor, ensure you use the next example format to ensure the code is accepted by E-learning when you import your questions.

Example:

```
\documentclass[12pt]{article}
\usepackage{moodle} //This is a very important line!!!!
\newcommand
\monomial[1]{x^{#1}}
\newcommand
\sillyanswer{What!?}
\begin{document}
\begin{quiz}{My first quiz}
\begin{numerical}[points=2]{Basic addition}What is$8+3$?
\item 11
\end{numerical}
\begin{shortanswer}[usecase]{Newton's name}What was Newton's first name?
\item Isaac
\item[fraction=0, feedback={\sillyanswer}] Fig\item[fraction=0] Sir
\end{shortanswer}
\begin{multi}[points=3]{A first derivative}What is the first derivative
of$\monomial{3}$?\item$\frac{1}{4}\monomial{4}+C$\item[feedback={yes!}]*$3\monomial{2}$
\item[feedback={\sillyanswer}] $51$
\end{multi}
\end{quiz}
\end{document
```

❖ **Compile the LaTeX document into a PDF, here we will download MiKTeX from the following link**

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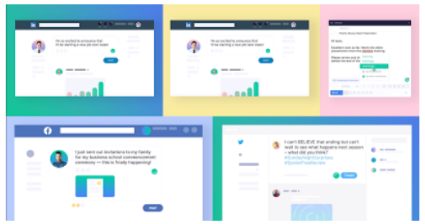
Getting MiKTeX

MiKTeX is available for selected operating systems.

Please check the prerequisites in order to find out whether your system is supported.

If your system is not (yet) supported: it is not too difficult to build MiKTeX.



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Installer Portable Edition Command-line installer

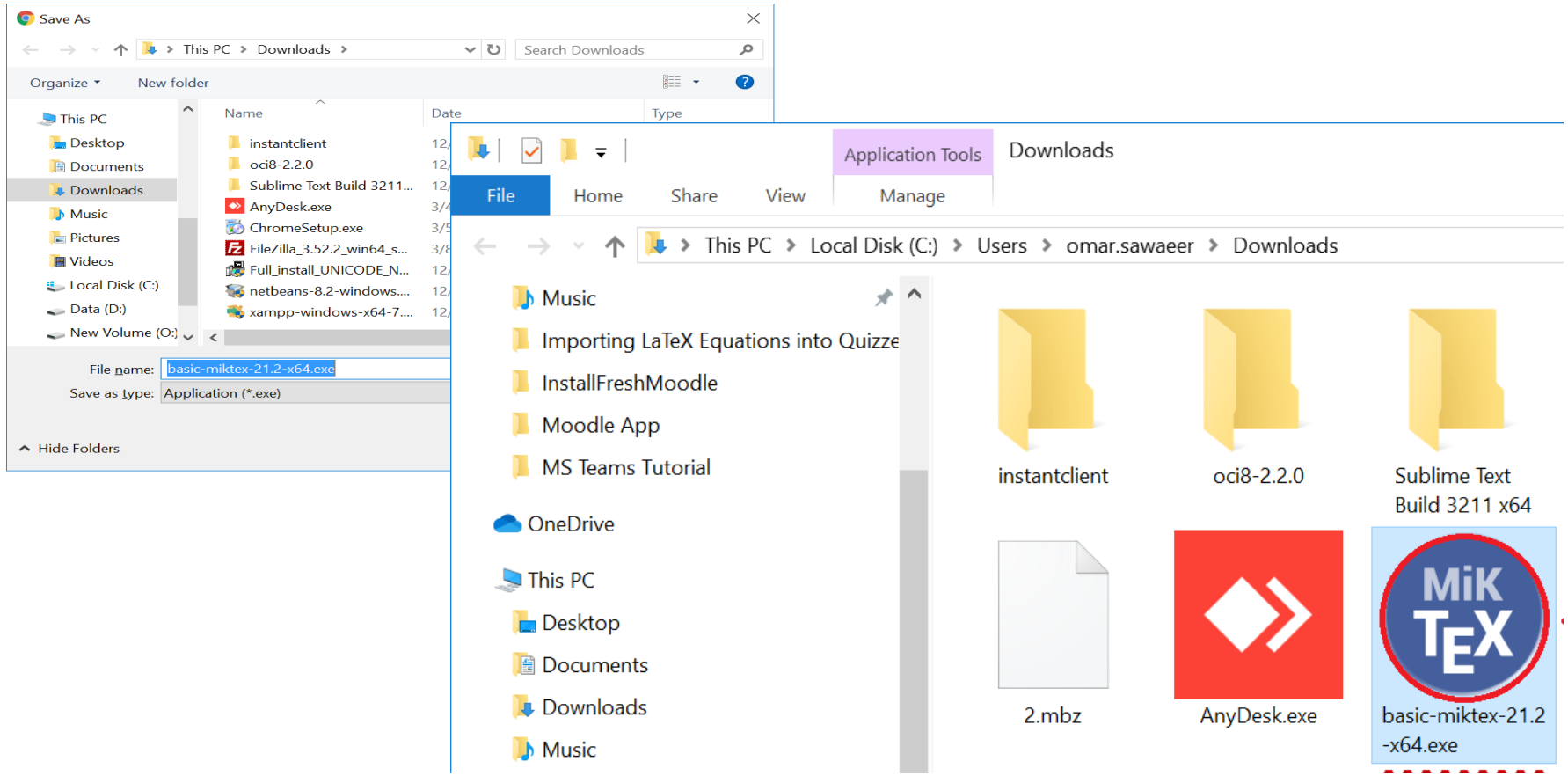
To install a basic TeX/LaTeX system on Windows, download and run this installer.

Please read the tutorial, if you want step-by-step guidance.

Date:	2/23/2021
File name:	basic-miktex-21.2-x64.exe
Size:	243.83 MB
SHA-256:	cb4160f7d3f310ff3490b51004596c2e42d272c08e8a1143d0757ece1ebf9d07

Download

- **Save the program and run it, then accept Copying conditions for MiKTeX and click all the Next buttons**



❖ After the installation, open your Tex document

LatexMoodleMathQuiz.tex - TeXworks

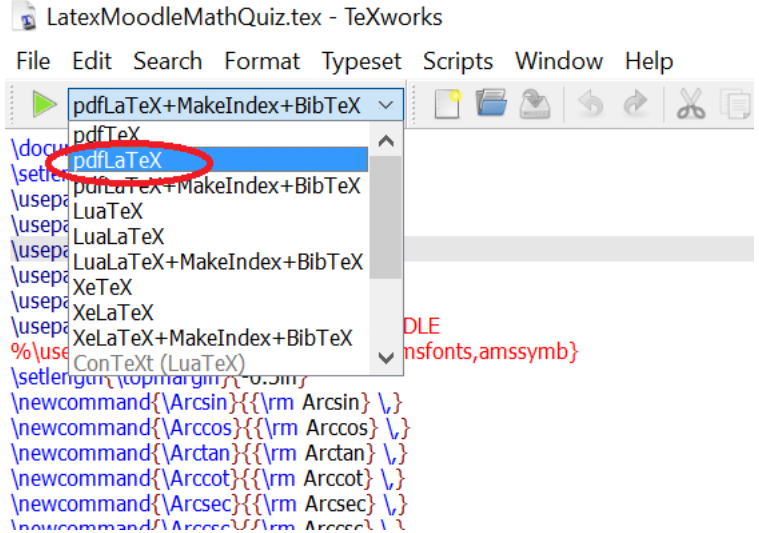
File Edit Search Format Typeset Scripts Window Help

pdfLaTeX+MakeIndex+BibTeX

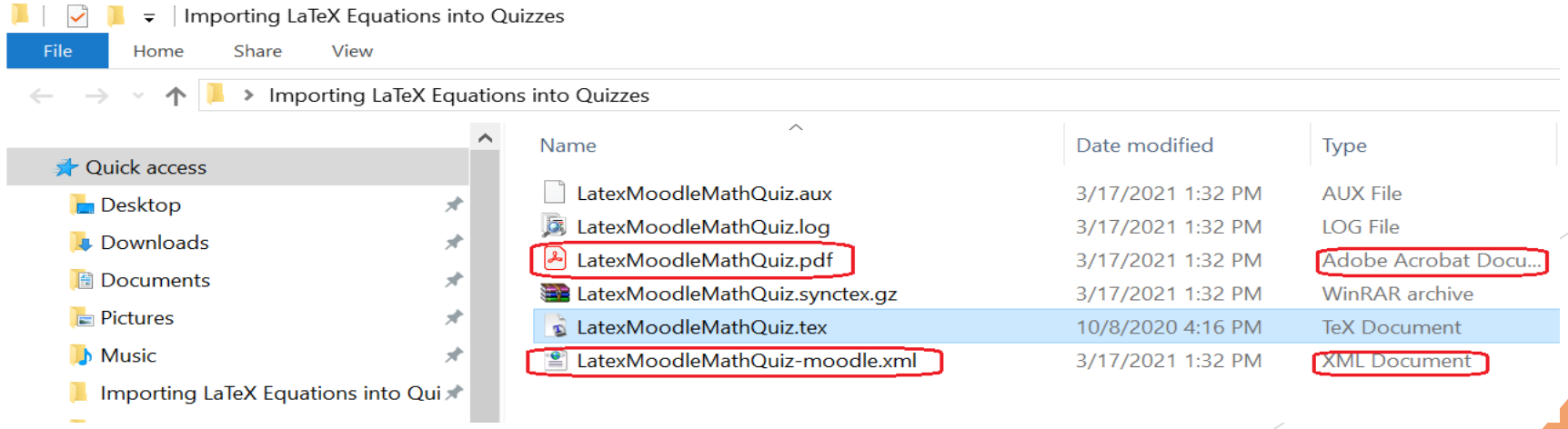
```
\documentclass[legalpaper, 9pt]{book}%
\setlength{\textheight}{14in}
\usepackage{latexsym}
\usepackage{amsmath}
\usepackage{amsthm}
\usepackage{multicol}%%%
\usepackage[pdftex]{color,graphicx}
\usepackage{moodle} %%%% call MOODLE
%\usepackage{amsopn,amstext,amscd,amsfonts,amssymb}
\setlength{\topmargin}{-0.5in}
\newcommand{\Arcsin}{{\rm Arcsin} \,}
\newcommand{\Arccos}{{\rm Arccos} \,}
\newcommand{\Arctan}{{\rm Arctan} \,}
\newcommand{\Arccot}{{\rm Arccot} \,}
\newcommand{\Arcsec}{{\rm Arcsec} \,}
\newcommand{\Arccsc}{{\rm Arccsc} \,}
\setlength{\topmargin}{-0.75in}
%\setlength{\parindent}{0in}
%\setlength{\textwidth}{6.50in}
\newsavebox{\savepar}
\setlength{\topmargin}{-0.5in}
%\setlength{\parindent}{0in}
\newcommand{\sol}[2]{#2}%%
\newcommand{\uu}{\mathbf{u}}
\newcommand{\vv}{\mathbf{v}}
\newcommand{\ww}{\mathbf{w}}
\newcommand{\ii}{\mathbf{I}}
\newcommand{\jj}{\mathbf{j}}
\newcommand{\kk}{\mathbf{k}}
\newcommand{\aaa}{\mathbf{a}}
\newcommand{\bb}{\mathbf{b}}
\newcommand{\cc}{\mathbf{c}}
\newcommand{\divsymb}
{\text{div}}
\newcommand{\GG}{\mathbf{G}}
\newcommand{\xx}{\mathbf{x}}
\newcommand{\zz}{\mathbf{z}}
\newcommand{\nn}{\mathbf{n}}
\newcommand{\oo}{\mathbf{0}}
\newcommand{\OO}{\mathbf{O}}
\newcommand{\N}{\mathbf{N}}
\newcommand{\X}{\mathbf{X}}
\newcommand{\rr}{\mathbf{r}}
\newcommand{\ff}{\mathbf{f}}
\newcommand{\curl}{\text{curl}\ }
\newcommand{\gggg}{\mathbf{g}}
```

CRLF | UTF-8 | Line 5 of 195; col 19

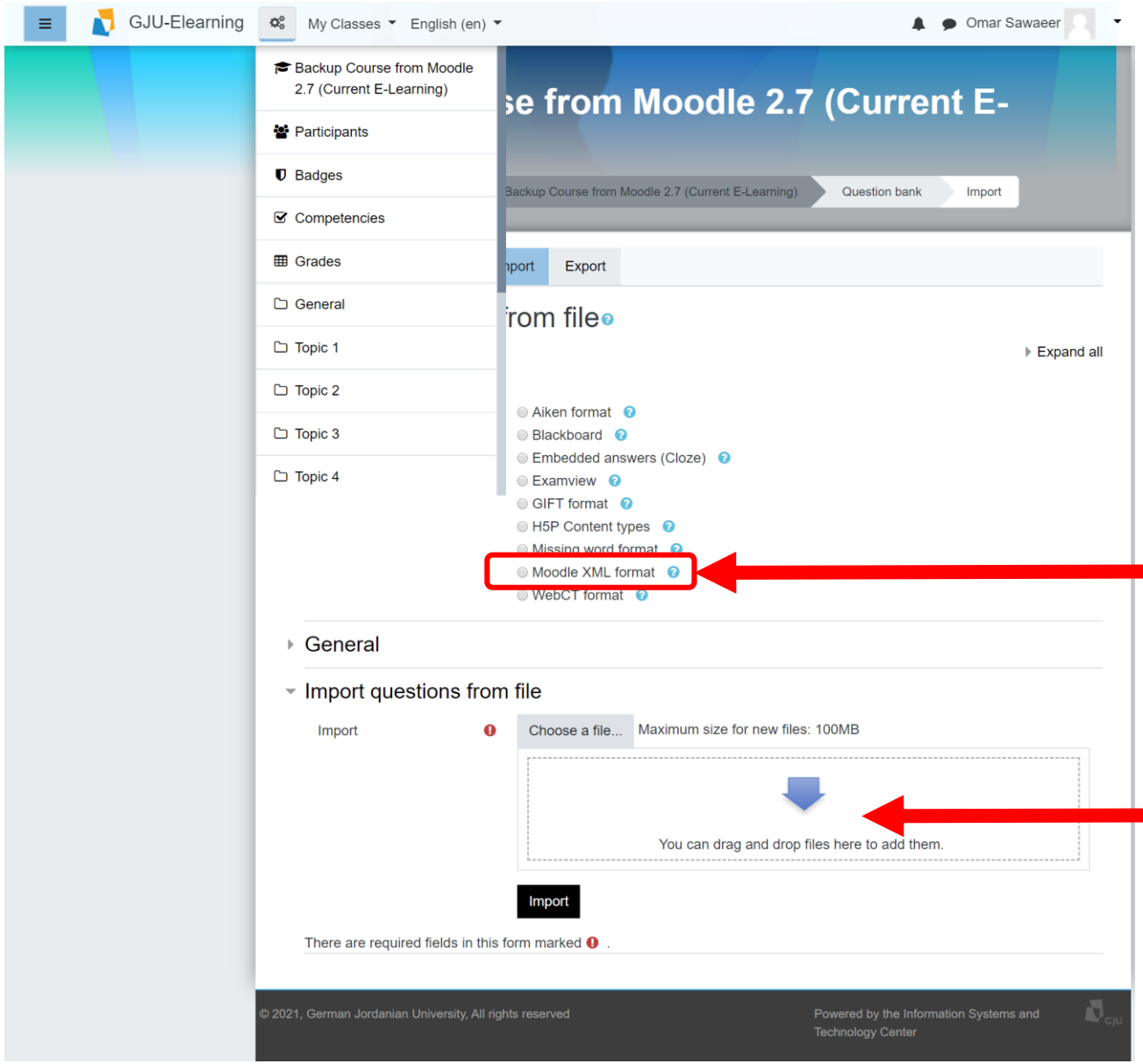
- Select pdfLatex from the dropdown menu, and click the run button



- After it finished, a new pdf and xml documents have been produced



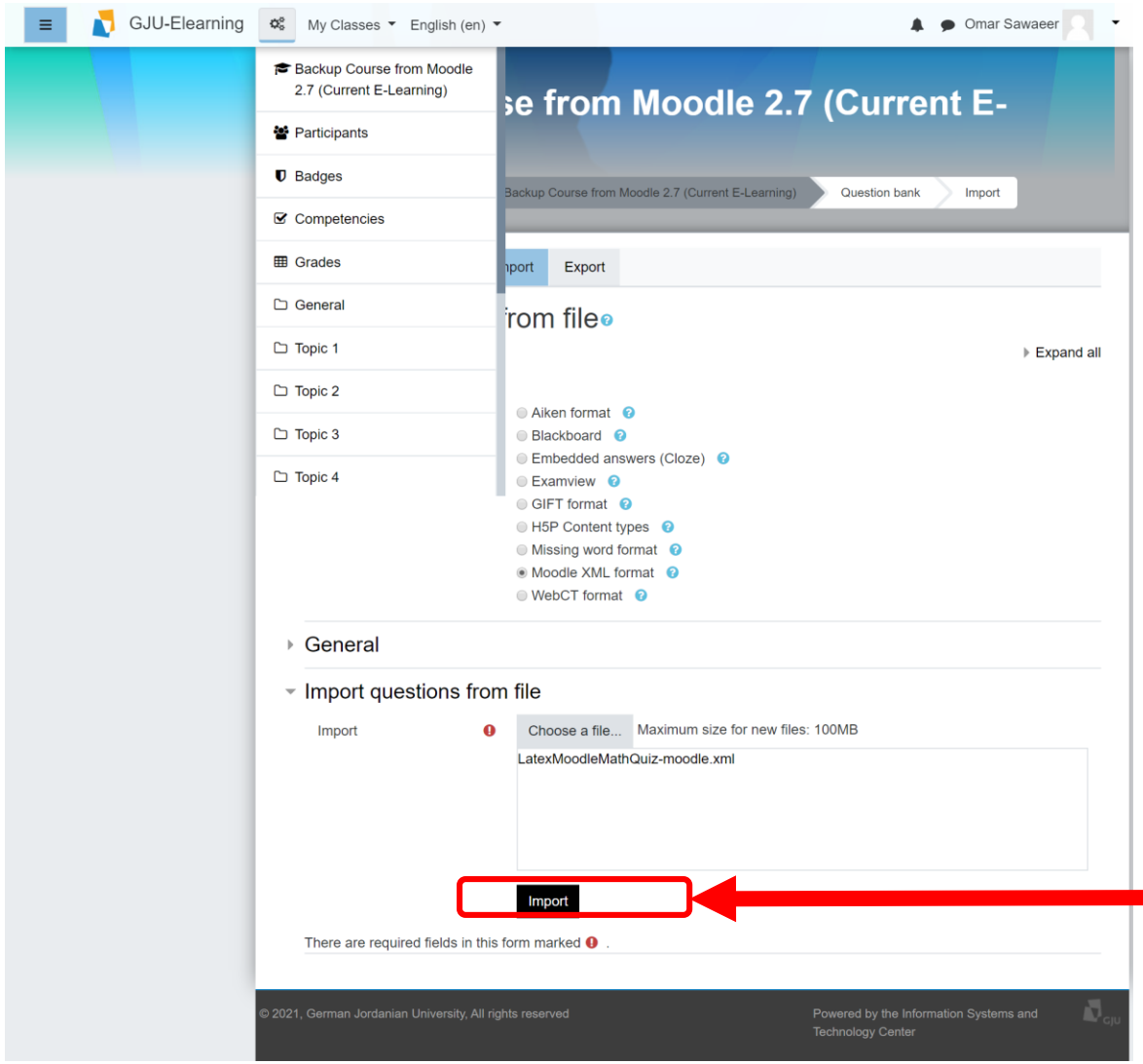
❖ Now we just need to import the XML file into E-Learning



Choose the Moodle XML format

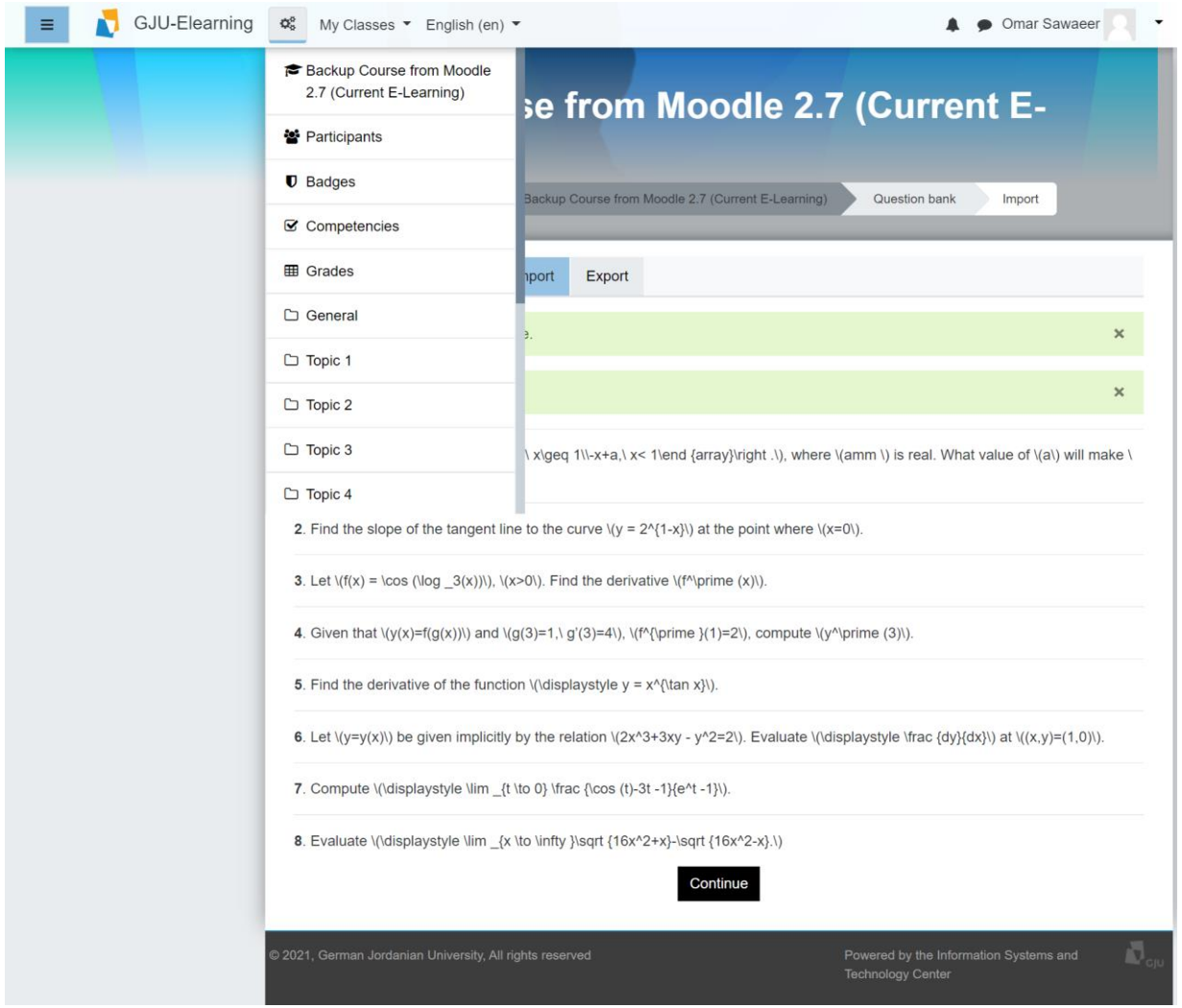
Drag and drop the XML file

❖ Click import

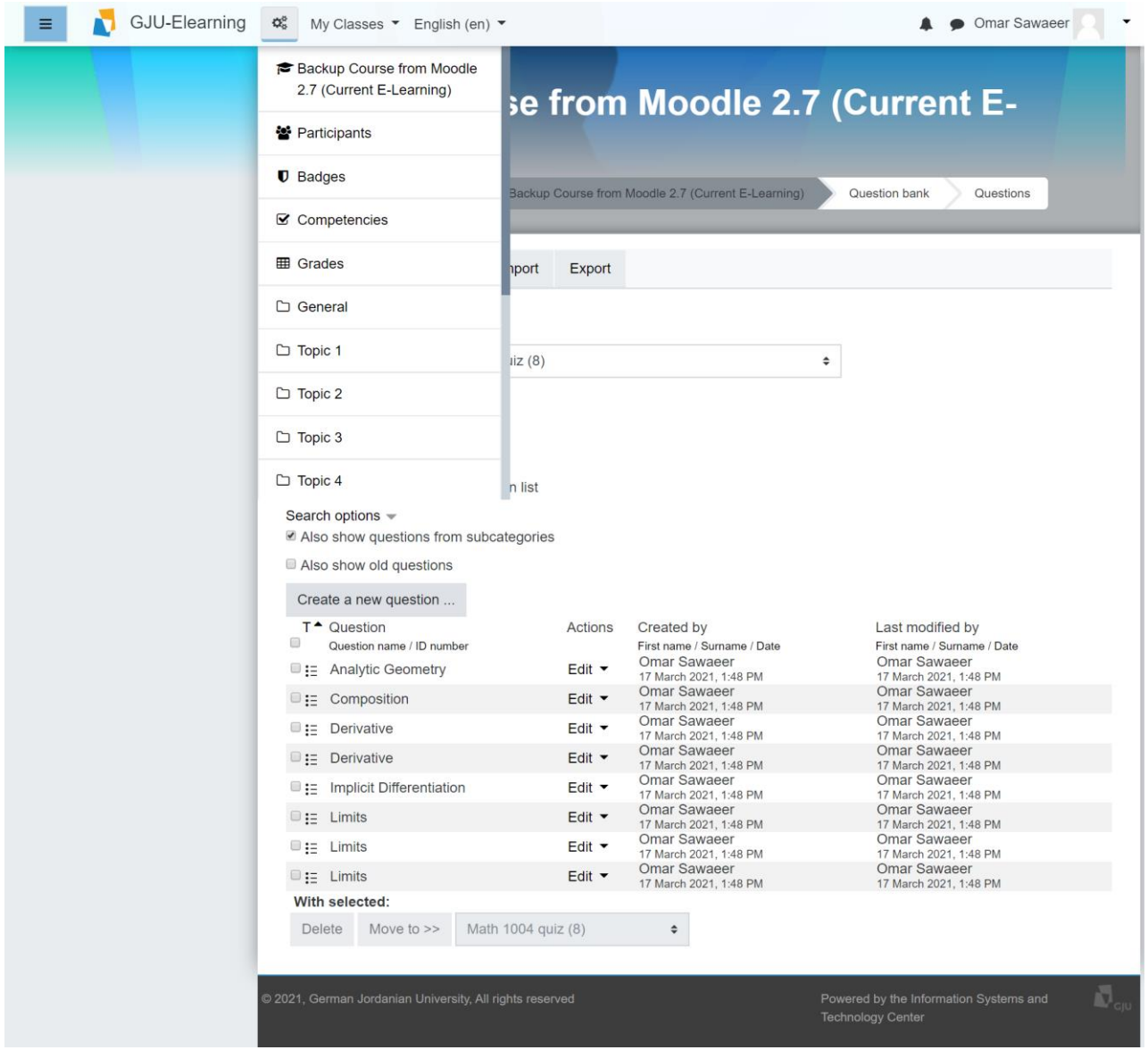


Click import

❖ **The questions imported successfully! Now let's click continue and see it**



❖ Here is the imported questions



Don't forget to preview your questions

Good luck