T.C.
MUGLA SITKI KOCMAN UNIVERSITY
INSTITUTE OF NATURAL AND APPLIED SCIENCES

INFORMATION SYSTEMS ENGINEERING

THESIS MANAGER: STREAMLINE YOUR THESIS WRITING PROCESS BY ELIMINATING FORMATTING HASSLES

Master of Science
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Institute of Natural and Applied Sciences

Approval

The Thesis/Dissertation entitled **Thesis Manager: Streamline your thesis writing process by eliminating formatting hassles** presented by **Said Nadeem** on **01-10-2023** has been approved by the jury to be granted the degree of **Master of Science** in the field of **Information systems engineering**

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Defence Date: 01-10-2023

Statement

This thesis represents an original and independent research effort, with all materials, content, and code developed exclusively for this work. No instances of plagiarism or unauthorized use of external sources have been employed in the creation of this thesis. The product resulting from this research is accessible online at thesismanager.com, showcasing the culmination of innovative ideas and dedicated effort.

sign

Said Nadeem
01-10-2023

ABSTRACT

Thesis Manager is a web application designed for writing graduate and undergraduate theses and dissertations. Its primary aim is to save time and assist researchers, students, and PhD candidates in the thesis/dissertation writing process, eliminating the need for time-consuming tasks such as formatting, numbering figures and tables, and verifying and formatting references.

With Thesis Manager, you can compose your main text in the primary rich text editor, upload tables and figures, access references from the internal search engine (scimatic.org search API), include supervisors and jury members, and easily share your work with them. You can effortlessly drag and drop figures and tables from the list into the main text, create chapters, insert mathematical formulas, and generate a fully formatted PDF of your thesis with just one click.

In summary, Thesis Manager takes care of everything you need to write your thesis/dissertation in an easy and manageable way. It handles the formatting of the thesis main document, title page, table of contents, list of figures and tables, list of symbols and abbreviations, numbering of headings and subheadings, figure and table numbering, landscape and portrait figures, references, and much more.

The workflow is as follows: write the thesis, submit it online to the supervisor, the supervisor sends it to the jury, each jury member provides feedback on different parts of the thesis, the supervisor sends it back to the student for revisions or approval and submission to the institute. Finally, the institute approves the thesis, making it visible to various stationary shops that can then contact you for the final printing process.

Keywords: Thesis Manager, Dissertation Writing, Academic Research, Formatting Assistance, Reference Management, Online Collaboration

ÖZET

Tez Yöneticisi, lisans ve lisansüstü tez ve tezlerin yazılmasında kullanılan bir web uygulamasıdır. Tez Yöneticisi'nin başlıca amacı, zaman kaybetmeden araştırmacılar, öğrenciler ve doktora adaylarının tezlerini/doktora tezlerini yazmalarına yardımcı olmaktır, böylece tez biçimlendirme, şekillerin ve tabloların numaralandırılması, kaynakların doğrulanması ve biçimlendirilmesi gibi zaman alıcı görevlerle uğraşmalarına gerek kalmaz.

Tez Yöneticisi ile ana metni ana zengin metin düzenleyicisinde yazabilir, tablo ve şekilleri yükleyebilir, dahili arama motorundan (scimatic.org arama API'si) referanslara erişebilir, danışmanlarınızı ve jüri üyelerini ekleyebilir ve kolayca paylaşabilirsiniz. Şekil ve tabloları ana metne listeden sürükleyip bırakabilir, bölümler oluşturabilir, matematiksel formüller ekleyebilir ve bir tıklamayla teziniz için tam biçimlendirilmiş bir PDF oluşturabilirsiniz.

Özetle, Tez Yöneticisi, tez/doktora tezi yazma sürecinizde ihtiyacınız olan her şeyle ilgilenir ve işleri kolay ve yönetilebilir bir şekilde halleder. Tez ana belgesinin biçimlendirmesini, başlık sayfasını, içindekiler tablosunu, şekiller ve tablolar listesini, sembollerin ve kısaltmaların listesini, başlıkların ve alt başlıkların numaralandırılmasını, şekil ve tablo numaralandırmasını, yatay ve dikey şekilleri, referansları ve çok daha fazlasını ele alır.

Çalışma akışı şu şekildedir: Tezi yazın, çevrimiçi olarak danışmana gönderin, danışman jürinin incelemesi için gönderir, her jüri üyesi tezin farklı bölümleri hakkında geri bildirim sağlar, danışman öğrenciye düzeltmeler için geri gönderir veya onaylar ve enstitüye gönderir. Son olarak, enstitü tezi onaylar, böylece çeşitli kırtasiye dükkanları son baskı işlemi için sizi görebilir ve iletişime geçebilir.

Anahtar Kelimeler: Tez Yöneticisi, Tez Yazımı, Akademik Araştırma, Biçimlendirme Yardımı, Kaynakça Yönetimi, Çevrimiçi İşbirliği

PREFACE

In embarking on this academic journey, I set out to explore and contribute to the realm of "Thesis Manager: Streamline your thesis writing process by eliminating formatting hassles". This thesis represents the culmination of countless hours of research, analysis, and dedication. It is a testament to my passion for Information Systems Engineering, Computer Science and my commitment to advancing knowledge in this field.

I would like to express my deepest gratitude to my supervisor Hüseyin GÜRÜLER, whose guidance and expertise have been invaluable throughout this process. Their unwavering support and insights have enriched the quality of this work.

I also extend my appreciation to my colleagues, friends, and family, whose encouragement and understanding sustained me during this endeavor.

This thesis is not just a scholarly pursuit; it is a reflection of my aspiration to make a meaningful contribution to universities and research institutions. I hope that the insights and findings within these pages will inspire further exploration and innovation in the field of computer programming.

Acknowledgement

I would like to extend my heartfelt appreciation to several individuals and entities who have played a pivotal role in the completion of this thesis.

First and foremost, I am deeply grateful to my parents for their unwavering support, encouragement, and belief in my abilities throughout this academic journey. Their love and guidance have been a constant source of inspiration.

I owe a debt of gratitude to my dedicated supervisor, Assoc. Prof. Hüseyin GÜRÜLER, whose mentorship, expertise, and constructive feedback have been instrumental in shaping the direction of this research. Their commitment to excellence has been a guiding light throughout this process.

I wish to acknowledge the Muğla Sıtkı Koçman University for providing an enriching academic environment that fosters learning, innovation, and intellectual growth. The resources and opportunities offered by the university have been instrumental in shaping my academic journey.

Additionally, I would like to express my deep appreciation to the individuals and organizations behind the free software libraries that have been indispensable in the development of this thesis. Their commitment to open-source principles and the availability of these valuable resources have significantly contributed to the success of this research.

To all those who have supported me, whether through their knowledge, encouragement, or resources, I am sincerely thankful. Your contributions have not only enriched this thesis but have also inspired me to continue exploring new frontiers in computer programming.

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List of Symbols and Abbreviations

Ag	Silver
PDF	Portable Document File
TL	Turkish Lira
TR	Türkiye

1. INTRODUCTION

In the realm of academic research and thesis writing, the journey from concept to completion is often laden with formidable challenges. The formatting intricacies, the laborious citation management, and the demanding procedures of ensuring compliance with university standards can be a daunting ordeal. Traditional tools like Microsoft Word and LaTeX, while serving as go-to platforms for many, come with their own set of hurdles. MS Word necessitates meticulous manual formatting, which can be both time-consuming and error-prone. LaTeX, on the other hand, demands a level of coding expertise that may not be within the grasp of every end user.

Enter **Thesis Manager**, a groundbreaking solution designed to revolutionize the landscape of thesis writing. At its core, Thesis Manager offers a unique and innovative approach that distinguishes it from its market counterparts. With Thesis Manager, the painstaking task of thesis formatting is streamlined to an effortless and automated process. All it takes is the selection of your university's name, and Thesis Manager seamlessly converts your thesis into a meticulously formatted PDF, adhering to your institution's guidelines with precision.

What sets Thesis Manager apart is its commitment to simplicity and accessibility. Unlike MS Word, where manual formatting becomes a herculean task, and LaTeX, which may not align with every user's coding preferences, Thesis Manager bridges the gap. It provides an intuitive platform that simplifies not only the formatting but also the entire thesis writing process. It offers a rich text editor for your main content, eliminating the need for coding expertise. Furthermore, Thesis Manager integrates features for easy collaboration, enabling effortless sharing with your supervisor, jury members, and your institute.

But the journey doesn't end there. Once your thesis is polished and ready, Thesis Manager takes care of the final steps. It facilitates the seamless distribution of your thesis to stationary shops, allowing them to contact you with competitive

printing offers. In need of doorstep service? Thesis Manager has you covered there too, ensuring your final printed thesis is delivered conveniently to your location.

In essence, Thesis Manager redefines the thesis writing experience. It transforms a traditionally cumbersome process into a seamless and efficient endeavor, sparing you from the intricacies of manual formatting or the barriers of complex coding. With Thesis Manager, your academic journey becomes a path of least resistance, allowing you to focus on what truly matters - the quality and substance of your research.

2. THESIS MANAGER

Thesis Manager is available as a web application at https://thesismanager.com in the following languages:

1. English
2. Türkçe
3. Spanish
4. Portuguese
5. Russian
6. Malay
7. German
8. Hindi
9. Persian
10. Arabic
11. French
12. Chinese
13. Urdu
14. Bangla
15. Pashto

Below is a screenshot of the main page of the thesismanager.com.

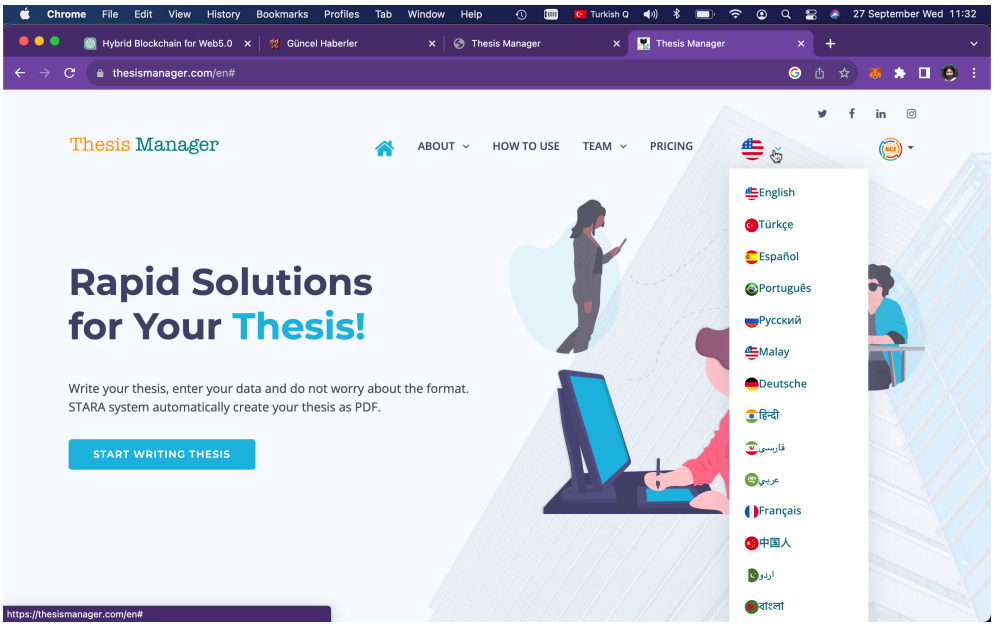

Figure 2.1. Main page of the Thesis Manager at thesismanager.com

3. GETTING STARTED

To starting writing thesis, click "START WRITING THESIS" on the main page or click the Login button. There are three ways to authenticate your account without the need of registration:

1. Login with Facebook
2. Login with Gmail
3. Login with MetaMask

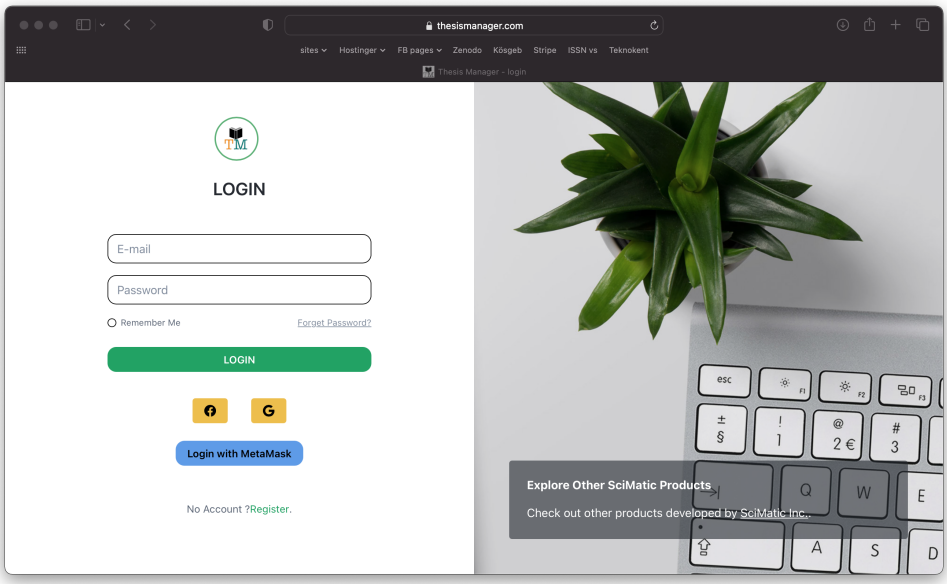

Figure 3.1. Login options at https://thesismanager.com/plogin

So, if you have a gmail or facebook account, we will authenticate your account using these services. Once you are registered, you can logout, come back to https://thesismanager.com/plogin and click "Forget password?", enter your gmail address or email registered with facebook to get a password. That is for the case if you want to login with password in the future, otherwise, just use the loging with Facebook or Gmail options.

If you have a metamask wallet installed in your browser, use the option of

Login with Metamask and once registered, you can edit your email address in the profile page.

3.1. Main Window Of Thesis Manager

Once you login, you can see the PDF copies of varous templates available in the Thesis Manager.

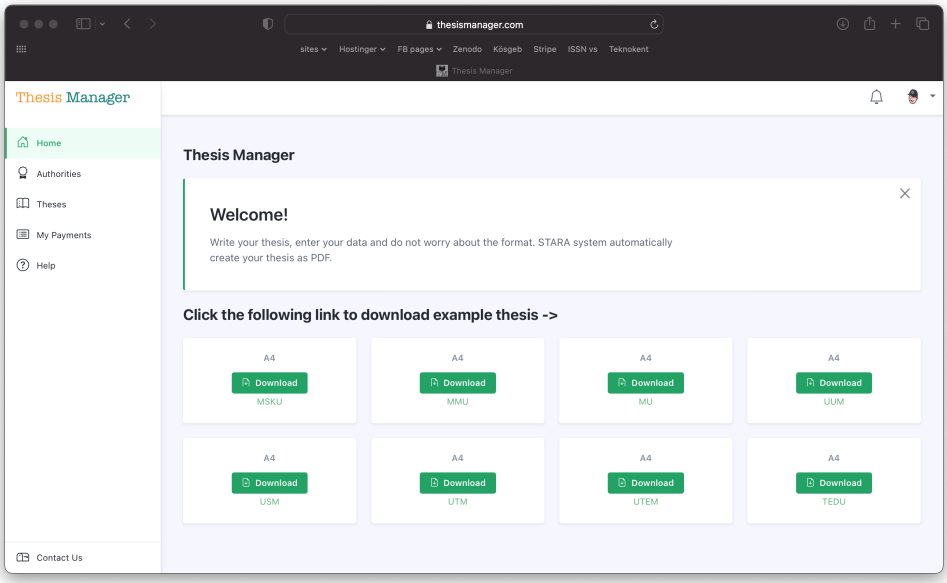

Figure 3.2. Main window of the app

3.1.1. Create New Thesis

On the left side of the menu, we will only deal with "Theses" for now. Click it and you will see a list of thesis (if you are already writing) in the window. Click the + icon as shown in the figure below to start writing new thesis.

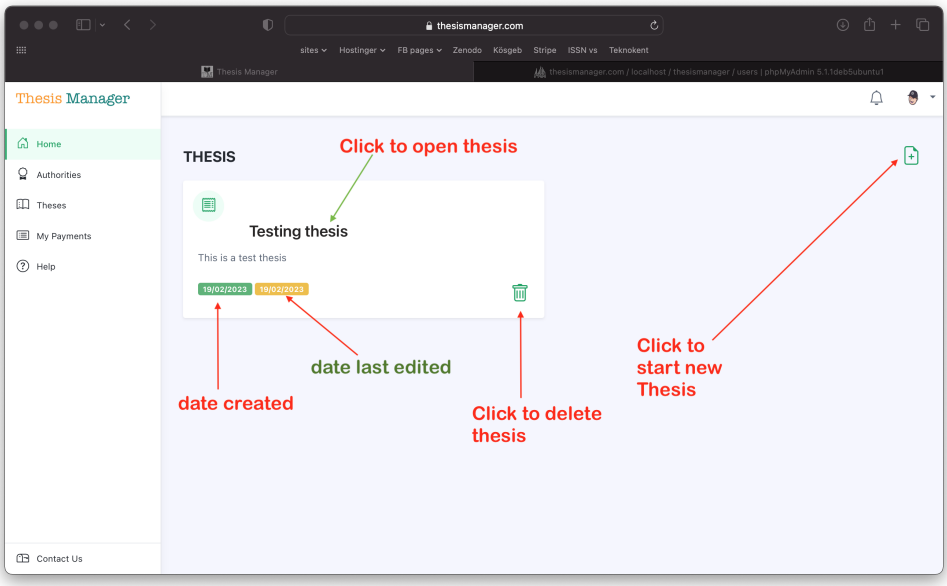

Figure 3.3. List of thesis screen

Fill the reuiqred information. For this thesis, we will select the MSKU template. Select your country, city and university name. If your university is not available in the list, just select anyone, later you can change it or contact us at info@scimatic.org. Alternatively, refresh the page, again click the create new thesis button (+), and you will see "Add Univeristy" button. From there, add your university. Click "Create New Thesis".

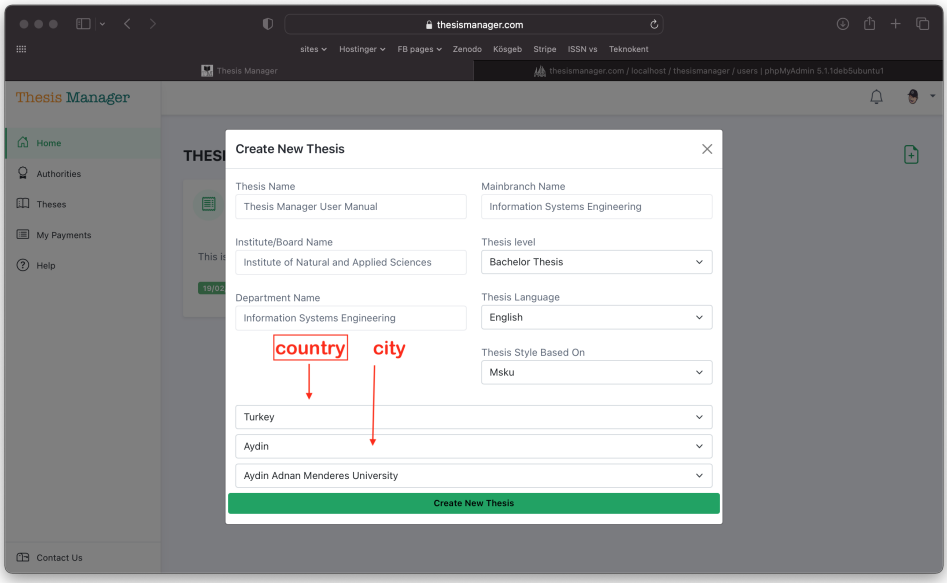

Figure 3.4. Info to create new thesis

3.2. Thesis Parts

3.2.1. Student Info

In the next window, you will see "Thesis Created" and student info. Enter student name, student number, and ID or passport number (some universities require this, you can leave it blank). At this stage, you can enter your university name if it was not available in the list previously.

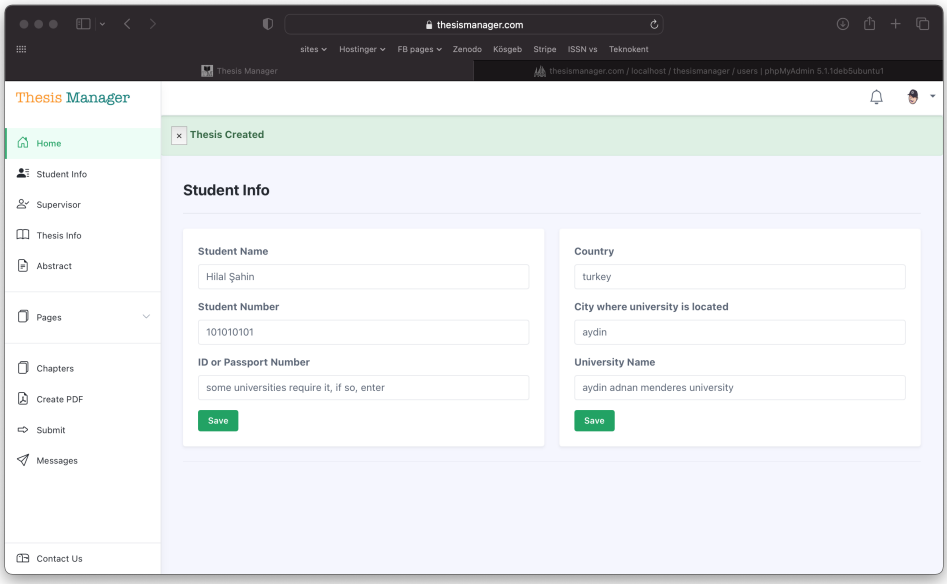

Figure 3.5. Information about the student / thesis candidate

3.2.2. Supervisor And Jury Info

On the left side of the window, click "Supervisor". There are three small windows in the screen as shown below:

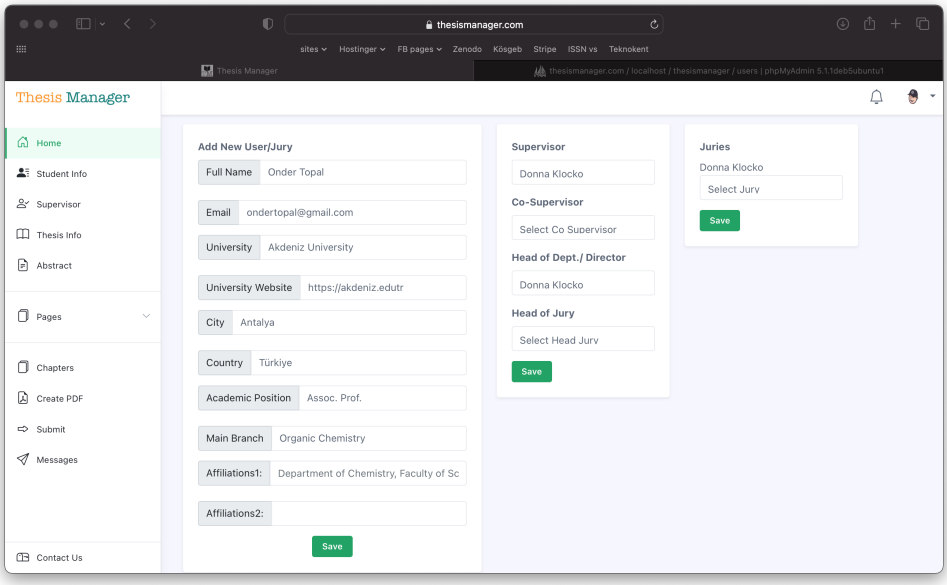

Figure 3.6. Add supervisor, Jury members and and select jury

In the middle screen, click the list below the Supervisor, select your supervisor. If the supervisor is not in the list, fill the form on the left side and save. Similary, add jury members, head of department, head of jury etc. On the right side, select the jury from the list and they will be added there. If mistkenly add a jury, select "Clear Jury" in the list. They reselect the jury members.

3.2.3. Thesis Info

On the left menu, clck thesis info, enter the thesis title in english and in local language (if required). At this stage, you can also change the thesis style, language, thesis level (Bachelor, Master, PhD) and thesis defence date.

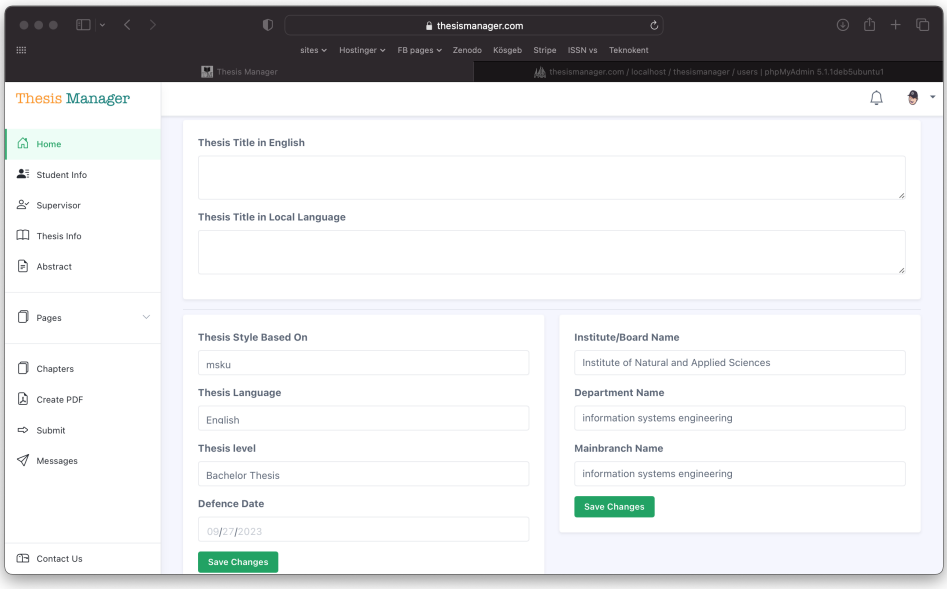

Figure 3.7. Thesis information, style, language and affiliation institution

3.2.4. Abstract

On the left menu, click abstract. Enter your abstract in English and local language (if required). Also enter 5 to 6 suitable keywords.

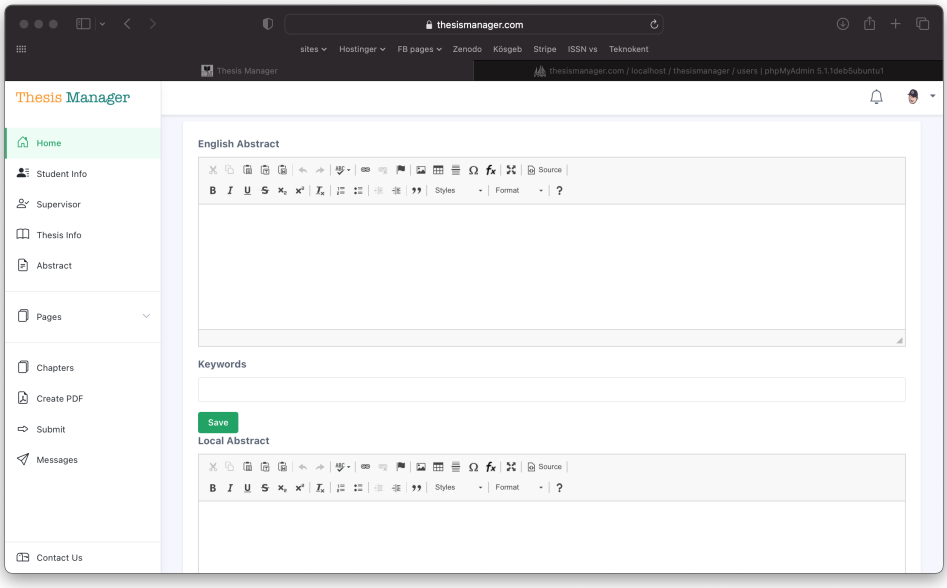

Figure 3.8. Abstract/Summary and Keywords

3.2.5. Additional Pages

There are addional pages that may be dfferent accoring to the university requirement or template. These pages include statement, preface, acknowledgement, dedication, copyright statement, approval page etc.

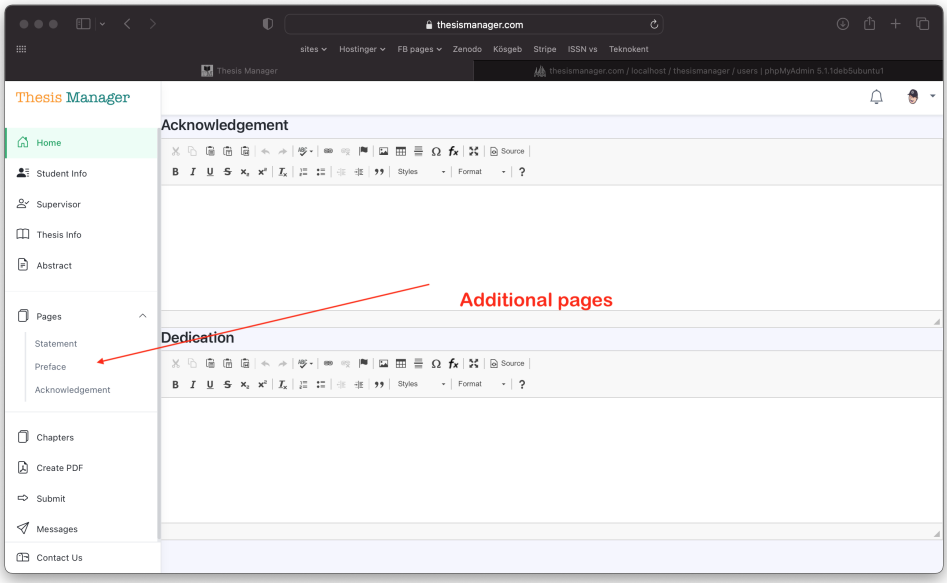

Figure 3.9. Additional pages may be different according to the university requirements

3.3. Chapters

After the necessary required pages, we have to add different chapters to our thesis. In general, most thesis requires an introduction, results and discussion, experimental, etc. However, you can name these chapters whatever you want. To enter chapters, click the "Chapters" in the left menu.

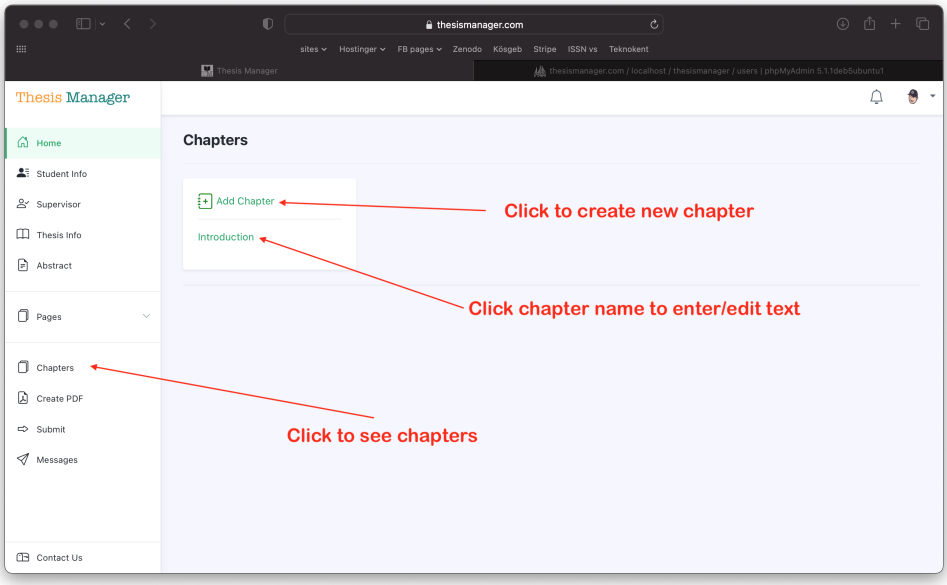

Figure 3.10. Add, edit and update chapters of thesis

4. FIGURES

It is very easy to include figures in your thesis. There will be the following steps:

1. Upload figure
2. Drag and Drop
3. Relocate if required

4.1. Upload Figure

In the left menu, click figures, then click the + button. A figure modal will pop up on the screen as show in the figure below. Browse the figure, enter caption and save the image.

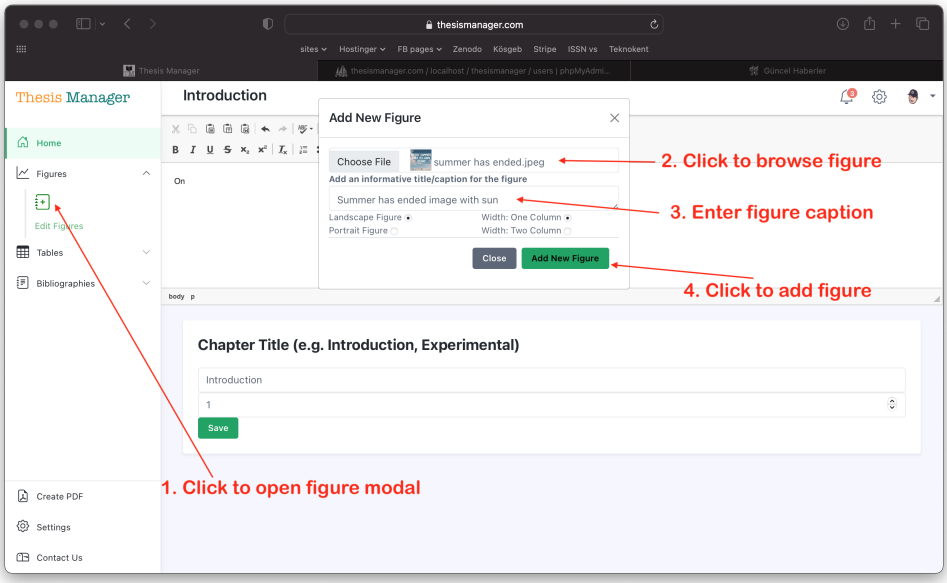

Figure 4.1. Upload figure and enter caption

4.2. Drag And Drop

In the left menu in under the "Figures", you can see a list of the uploaded figures. Bring your mouse over the name of the figure, drap and drop in the text wherever you want the figure to be appeared. Thesis Manager will care about its numbering, caption and putting it in the "List of Figures" with page number.

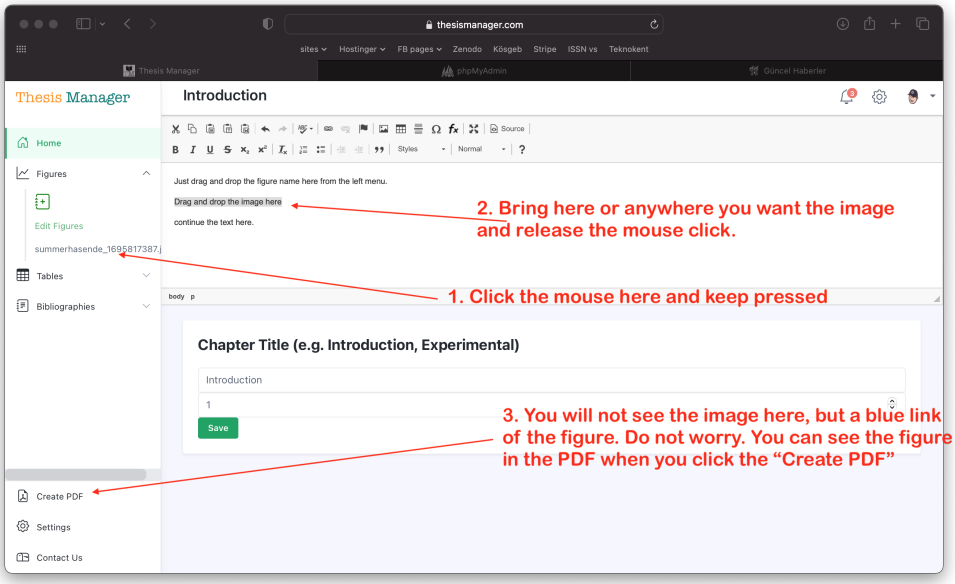

Figure 4.2. Drag and Drop the imge where you want it in the text

After drag and drop the figure, you will see only a blue link and not the figure itself to give you more space. See the figure well placed and numbered in the PDF.

4.3. Relocate Figure

Click the Create PDF button on the left. Check the PDF file. If a file is shifting to the next page due to its side, you can relocate the place of the figure in the text to manage the space. It is very easy. Just select the name of the blue link (after you drag and dropped) and take anywhere in the text. It is suggested to leave the figure on a separate line.

4.4. Editing Figures

Sometimes you need to change the figure with another one or want to change the size or orientation of the figure as appeared in the PDF copy. For that, click the "Edit Figures" in the left menu below the + button under the "Figures" tab. You will see a list of the figures you have uploaded.

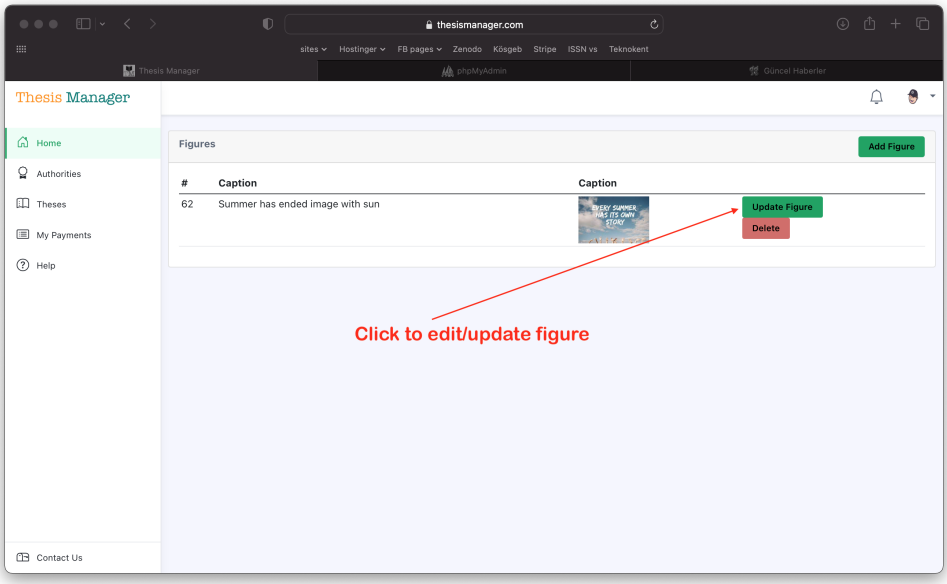

Figure 4.3. List of figures you have uploaded

In the list of figures, click the "Update Figure" button for the corresponding figure. You will see the update page as given below:

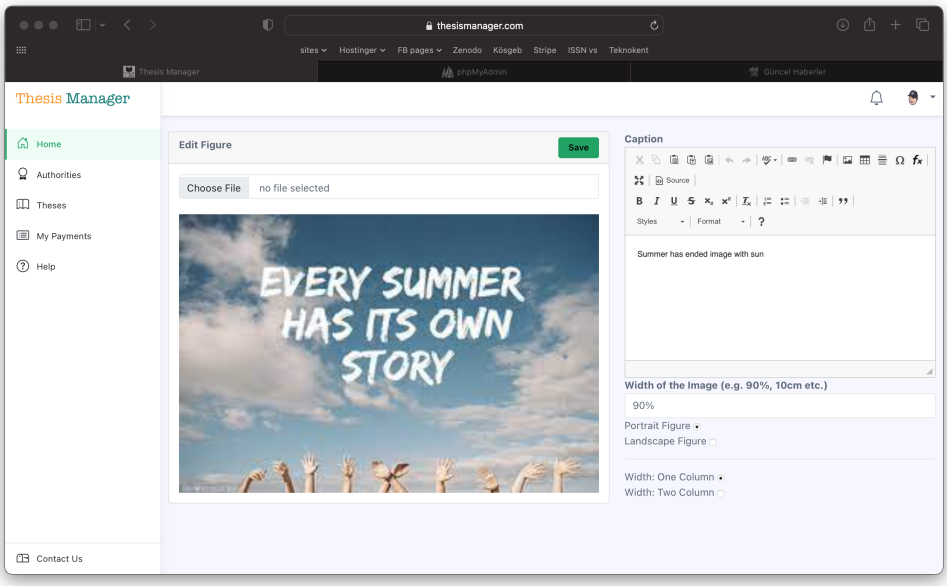

Figure 4.4. Edit / Update any figure

4.4.1. Size Of The Figures

By default, the images are wide 90% of the allowed print area as in case of the figure above. Now here we will do various experiments with the images. In the edit image screen, change the "Witdh of the Image" from 90% to 50%. The figure will capture 50% of the allowed printed area as given below:

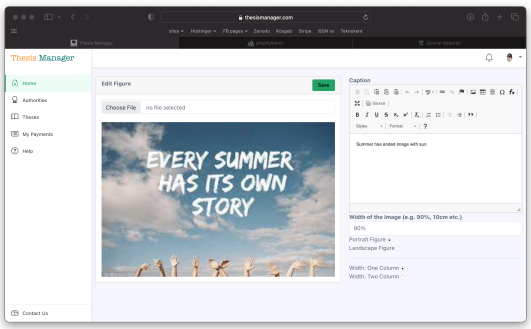

Figure 4.5. 50% width of the figure

Alternatively you can also use centimeters (cm) for the width e.g. 10cm.

4.4.2. Orientation Of The Figures

Sometimes you need landscape figures in your thesis. Thesis Manager also provide this freedom. Here we will test the landscape figure.

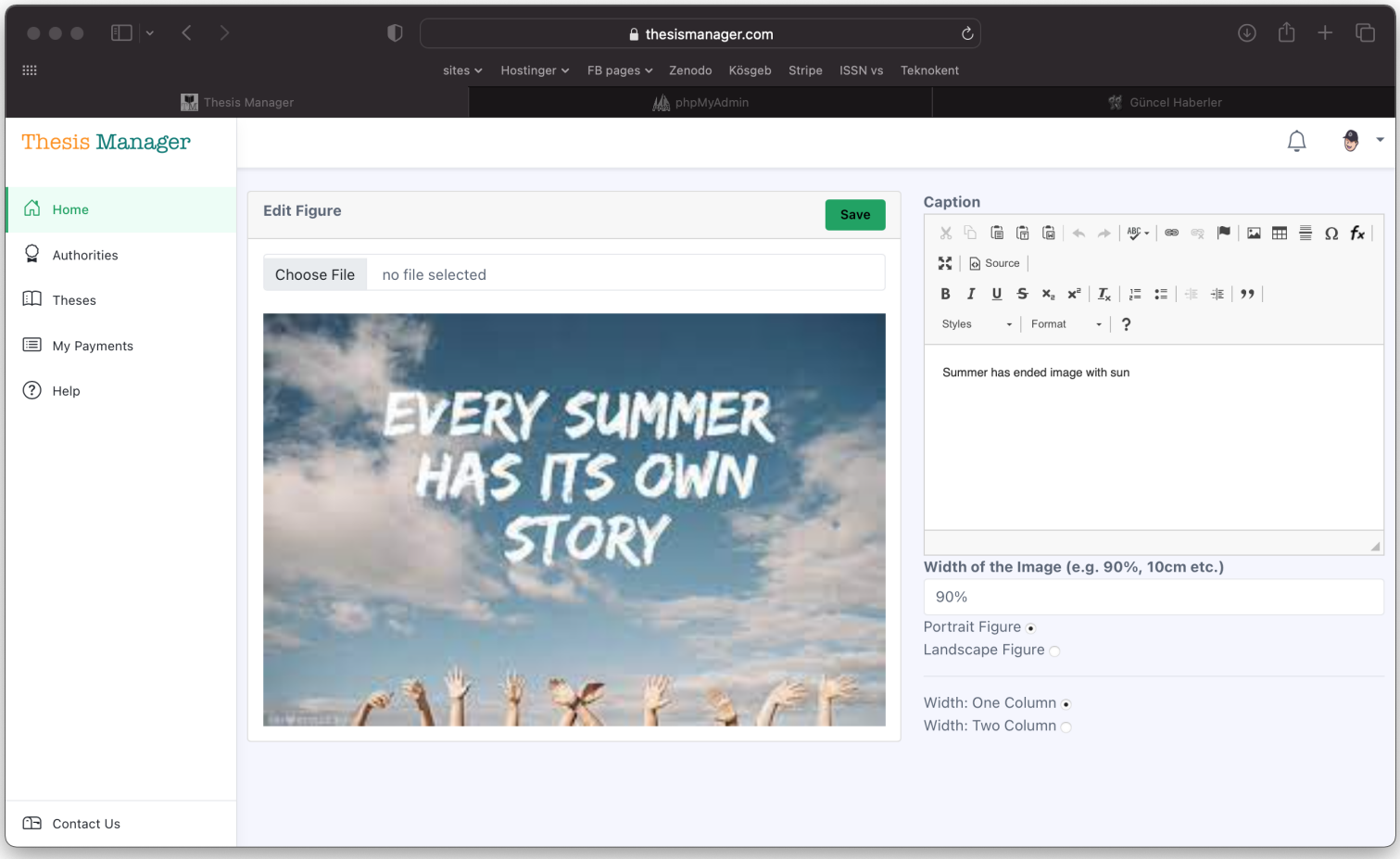

Figure 4.6. This is a landscape aligned figure

By default all the images are portrait.

Note: Sometimes the caption of the image in the landscape figures can shift to the next page. It happens when the imgae is a bit large. solve this problem by editing the image and enter the figure size as 80% or 70% as feel well.

5. TABLES

It is very easy to include tables in your thesis. There are different approaches:

1. Create table
2. Paste from MS Word
3. Drag and Drop
4. Relocate if required

5.1. Create Table

In the left menu, click tables, then click the + button. A table modal will pop up on the screen as show in the figure below. Enter a table name (this is for your memory, Thesis Manager will not use that name). Click the table icon and create the table.

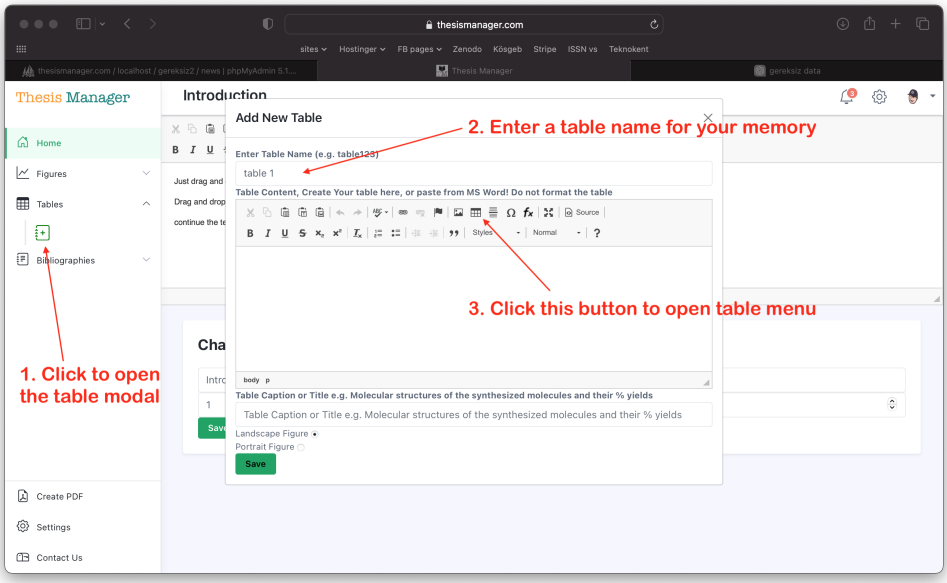

Figure 5.1. Create table using table modal

5.2. Paste From MS Word

Alternatively create a table in MS Word, copy only the table part and paste in the window opened. Click the remove formating button to remove the MS Word formating options. For advances users, click the Source button if you know html tables.

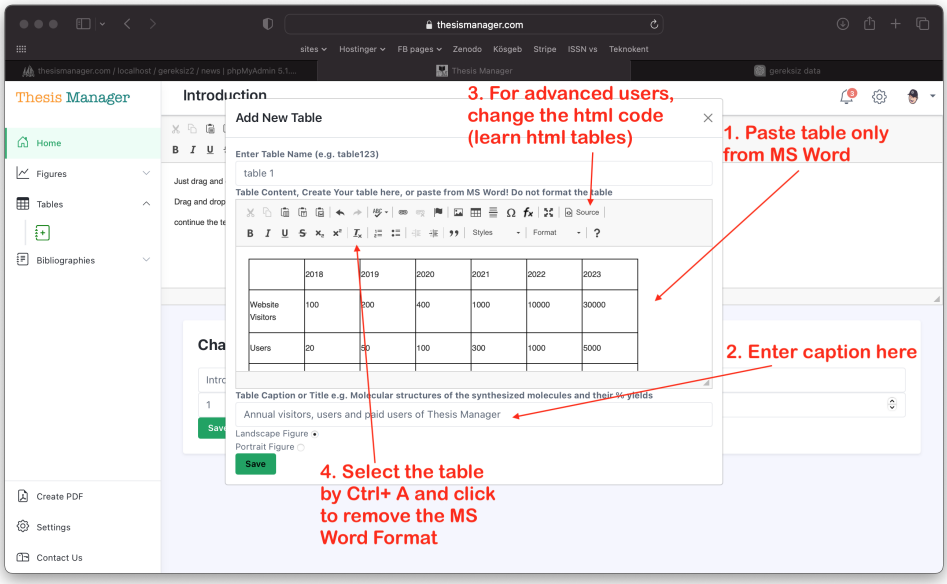

Figure 5.2. Paste table from MS Word

Below is a table obtained by pasting from MS Word.

Table 5.1. Annual visitors, users and paid users of Thesis Manager

	2018	2019	2020	2021	2022	2023
Website Visitors	100	200	400	1000	10000	30000
Users	20	50	100	300	1000	5000
Paid Users	0	1	5	22	50	110

5.3. Drag And Drop

In the left menu in under the "Tables", you can see a list of the tables. Bring your mouse over the name of the table, drap and drop in the text wherever you want the table to be appeared. Thesis Manager will care about its numbering, caption and

putting it in the "List of Tables" with page number.

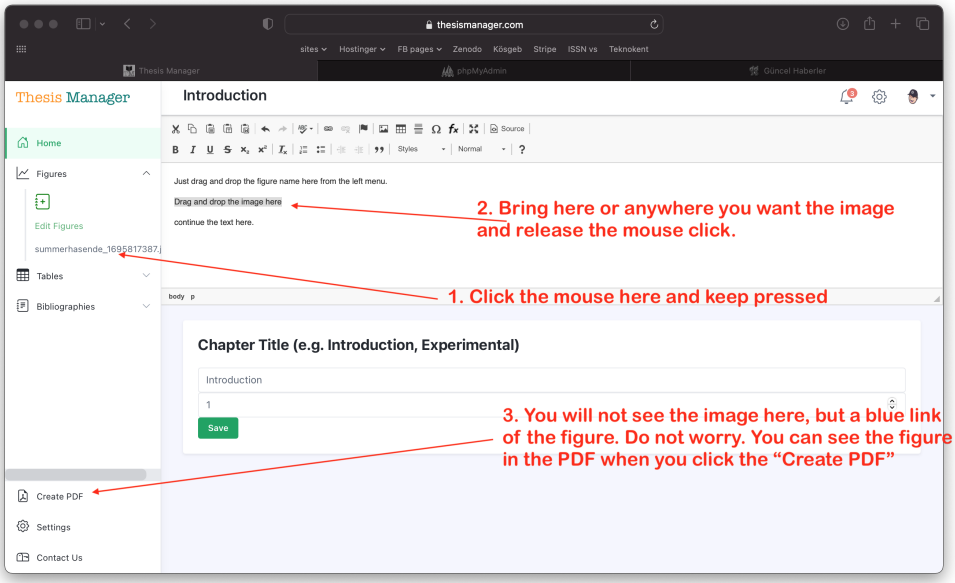

Figure 5.3. Drag and Drop the imge where you want it in the text

After drag and drop the table, you will see only a blue link and not the table itself to give you more space. See the tables well placed and numbered in the PDF.

5.4. Relocate Table

Click the Create PDF button on the left. Check the PDF file. If a file is shifting to the next page due to its side, you can relocate the place of the table in the text to manage the space. It is very easy. Just select the name of the blue link (after you drag and dropped) and take anywhere in the text. It is suggested to leave the table on a separate line.

5.5. Editing Tables And Orientation

Sometimes you need to make changes in the table or want to change the orientation of the table as appeared in the PDF copy. For that, click table name from the list in the left menu below the + button under the "Tables" tab. You will see a list of the tables you have created.

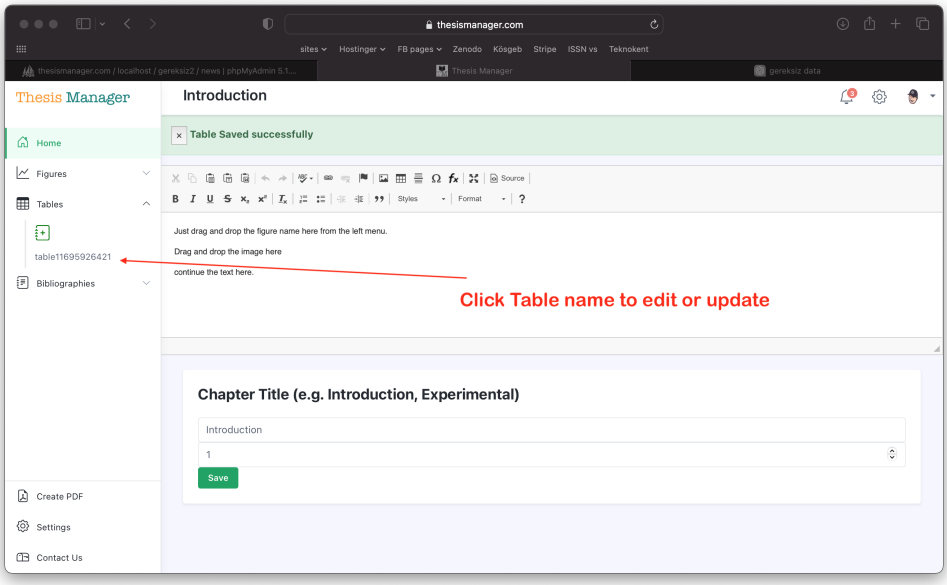

Figure 5.4. Tables in this chapter of thesis

Click the "Edit" button for the corresponding table. You will see the update page as given below:

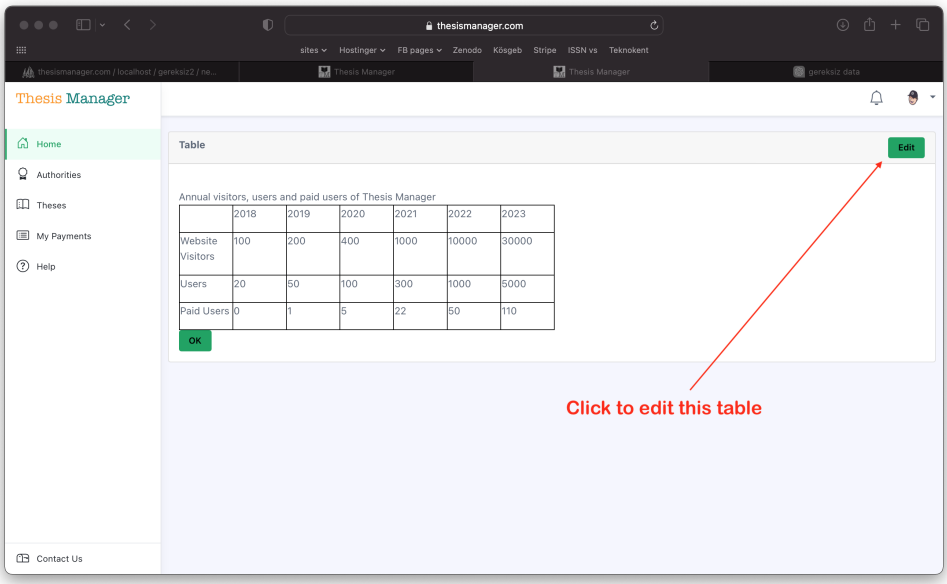

Figure 5.5. Table to edit

As shown in the figure below, you change the caption of the table, the table itself. If the table is larger or you want to show it in a landscape, select that option from this window.

6. REFERENCES

It is very easy to include references in your thesis. Thesis manager will take care of the formating. You have to followi the following steps:

1. Add Bibliography
2. Drag and Drop
3. Relocate/Reuse

6.1. Add Bibliography

In the left menu, click Bigliographies, then click the + button. A Bibliography modal will pop up on the screen as show in the figure below.

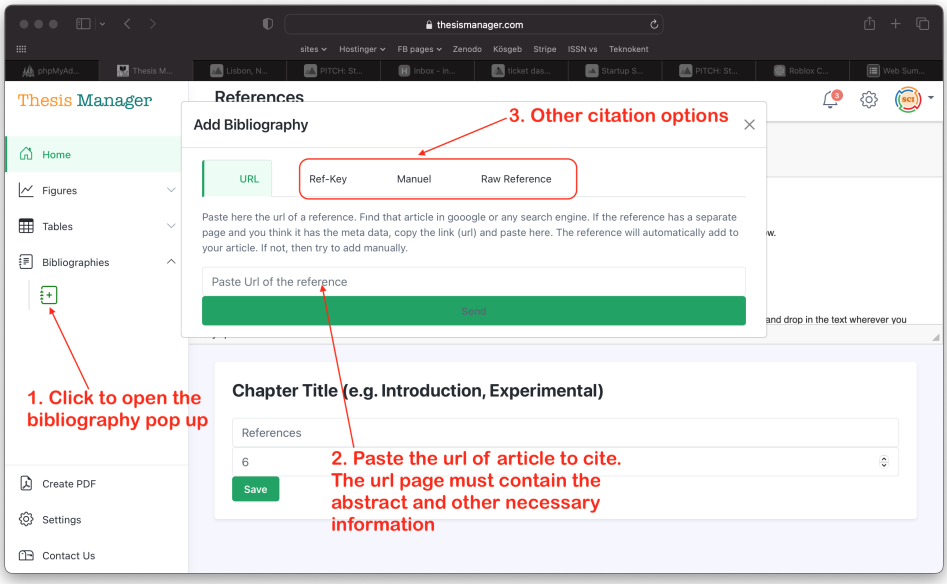

Figure 6.1. Add bibliography to thesis - various options

There are various options to add bibliography to your database. The best and easiest way is to search the article in google scholar or google and find the exact page of the article. For example, lets search for "anticancer drugs" in

scholar.google.com. Click the suitable link that will lead you to the article page. Below is an example of the search:

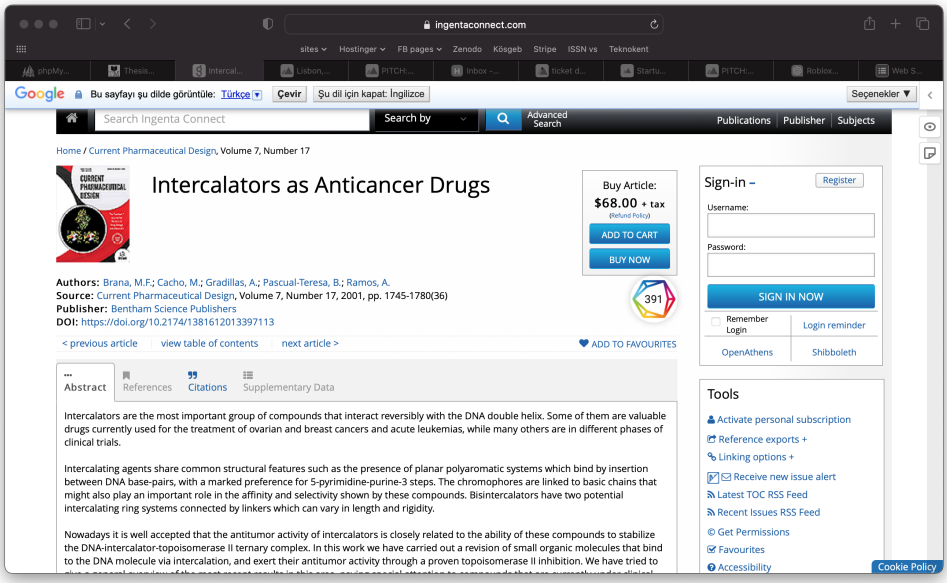

Figure 6.2. Article page found in google schlar

Get the url (link) of the article and paste in the input box as shown below and click the Send button. The bibliography will appear in the list below the Bibliographies button on the left.

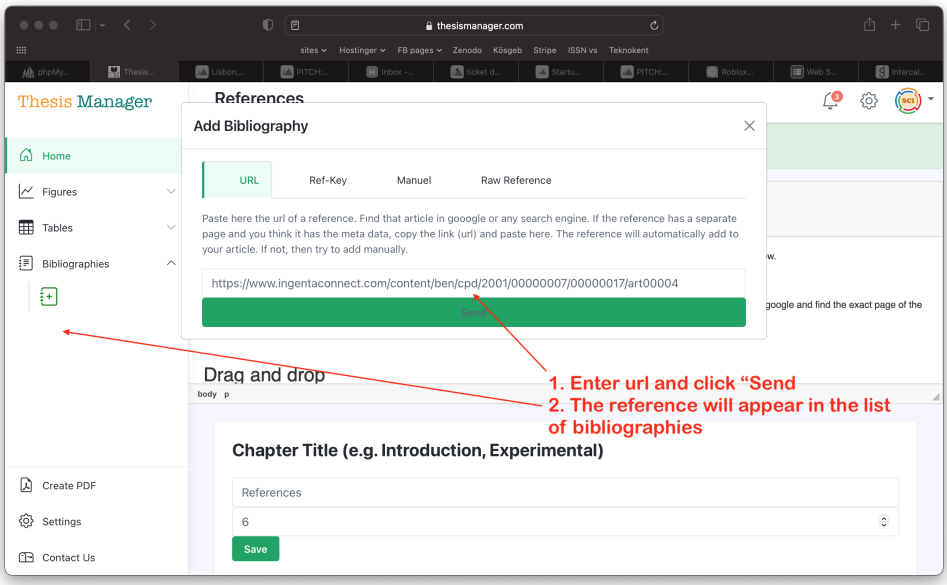

Figure 6.3. Add article by link (url)

If you see an error of of "Journal not found", it means the journal website is not allowing our search engine to get the meta data.

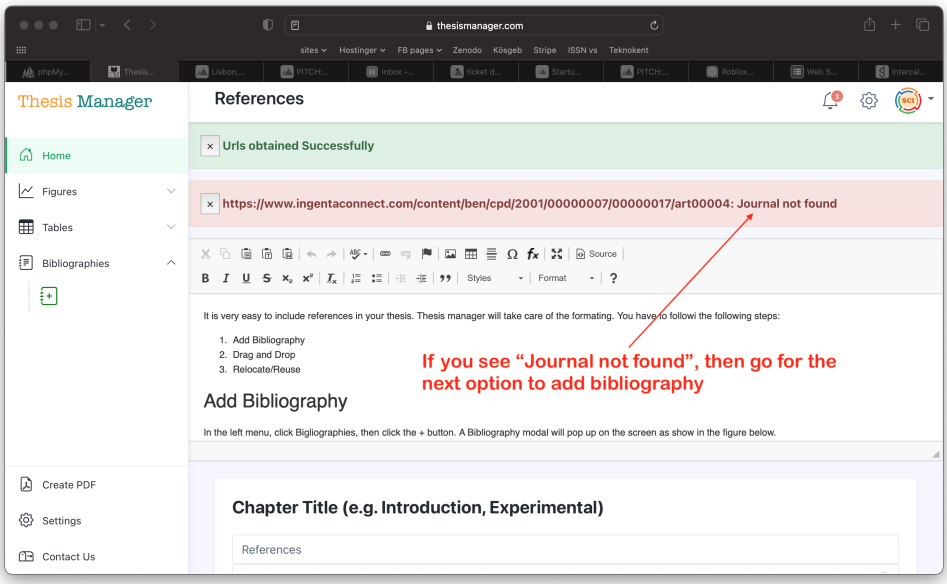

Figure 6.4. "Journal not found" Error

Go for the next option to add bibliography manually. Fill the form for in the add bibliography by selecting the option "Manual" and save. You will see the reference appeared in the list. We are also working on more options to make the citation process more easy.

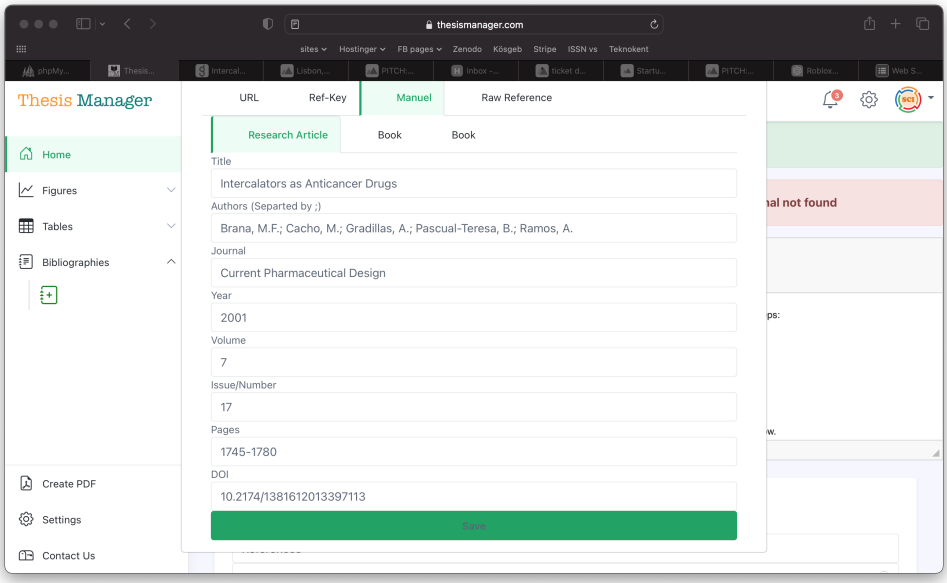

Figure 6.5. Add article manually

6.2. Drag And Drop

In the left menu in under the "Bibliographies", you can see a list of the added bibliographies. Bring your mouse over the name of the bibliography, drap and drop in the text wherever you want the bibliography to be appeared. Thesis Manager will care about its citation and reference. The style of the citation and reference can be updated or changed on request (Brana et al., 2001).

After drag and drop the figure, you will see only a blue link and not the figure itself to give you more space.

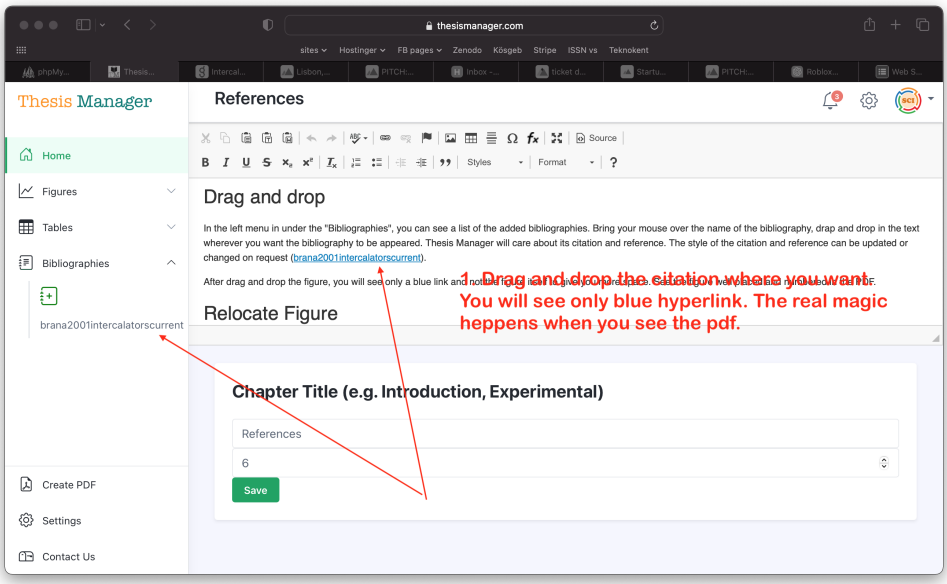

Figure 6.6. Citing an article in thesis

See the figure well placed and numbered in the PDF.

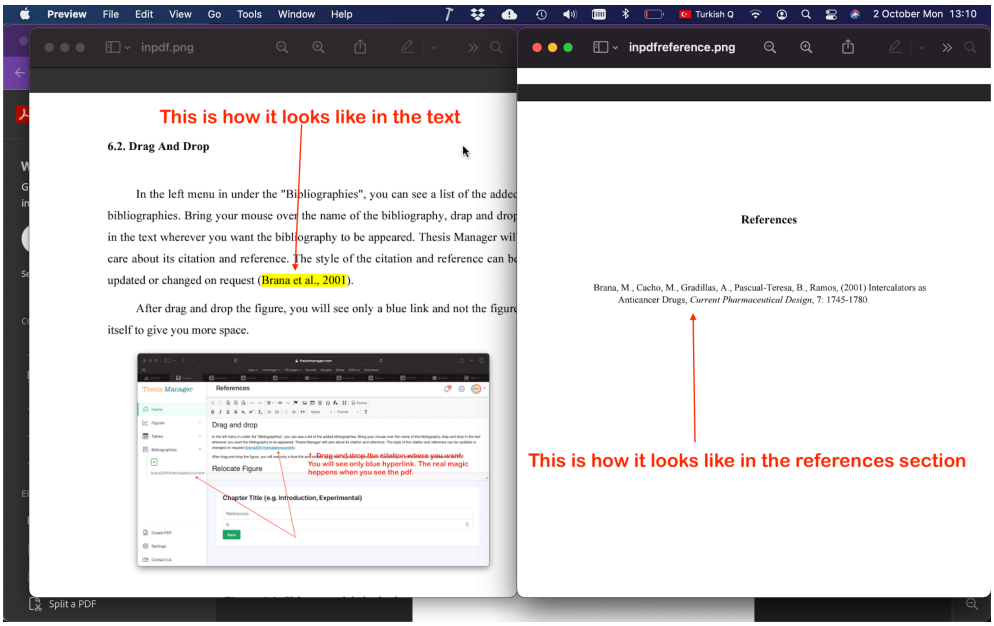

Figure 6.7. Automatically formatted reference in the text and in the references section

6.3. Relocate/Reuse

You can relocate the place of the bibliography or reuse in another place in the text. Ro relocate, just select the name of the blue link (after you drag and dropped) and take anywhere in the text. You can reuse the citation as many time as you want. Here we will add some more articles for the references section (Son, 2011).

7. MATHEMATICAL FORMULAE

Thesis manager supports LaTeX formula. To enter a mathematical formula, click the the fx button in the rich text editor as shown below:

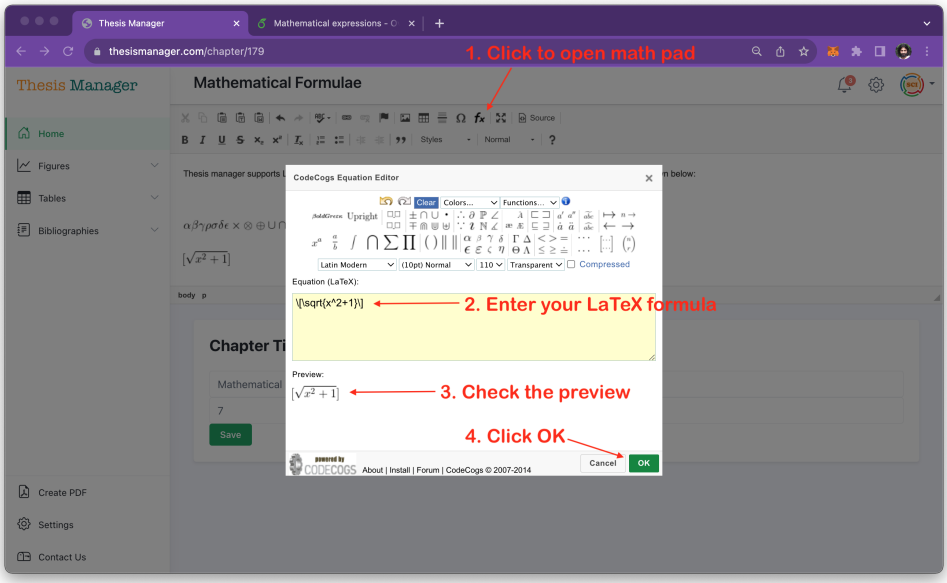

Figure 7.1. Adding mathematical formula and equation

Below are few examples entered by using the Math Pad.

$$[\sqrt{x^2+1}]$$

$$\alpha\beta\gamma\rho\sigma\delta\epsilon \times \otimes \oplus \cup \cap \int \oint \sum \prod$$

$$[\sqrt{x^2+1}]$$

8. ABBREVIATIONS

Thesis Manager automatically deals with your abbreviations and create the list in the alphabetically order and add it to the table of contents. To add an abbreviated word to the list, first select the word. Here we will add 3 words i.e. TL (Turkish Lira), TR (Türkiye) and Ag (silver). So we select WHO and click the Style button in the rich text editor, then click the market to make the text yellow.

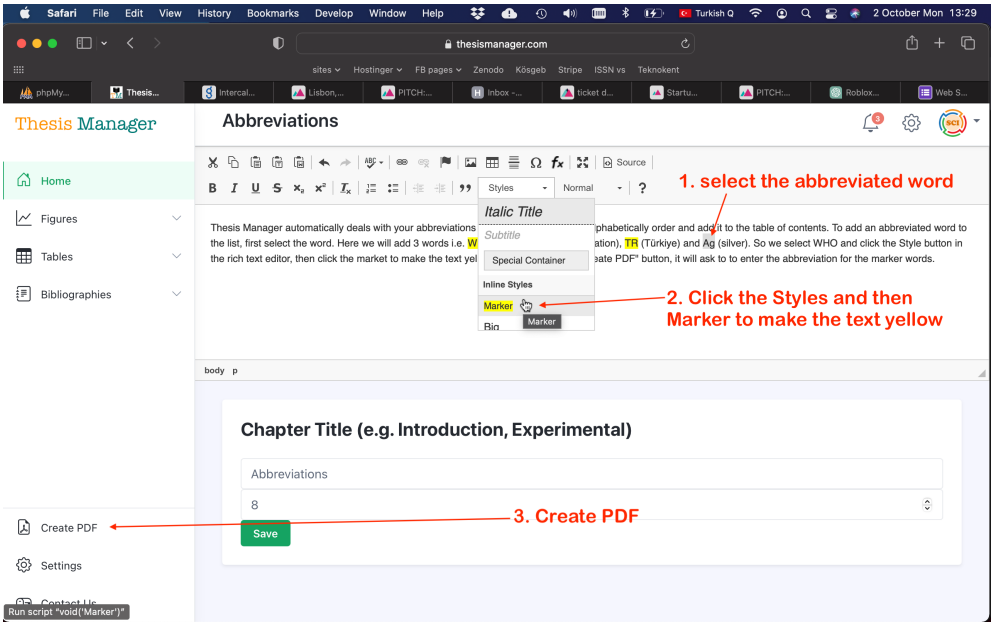

Figure 8.1. Abbreviate the words

When you click to "Create PDF" button, it will ask to to enter the abbreviation for the marker words.

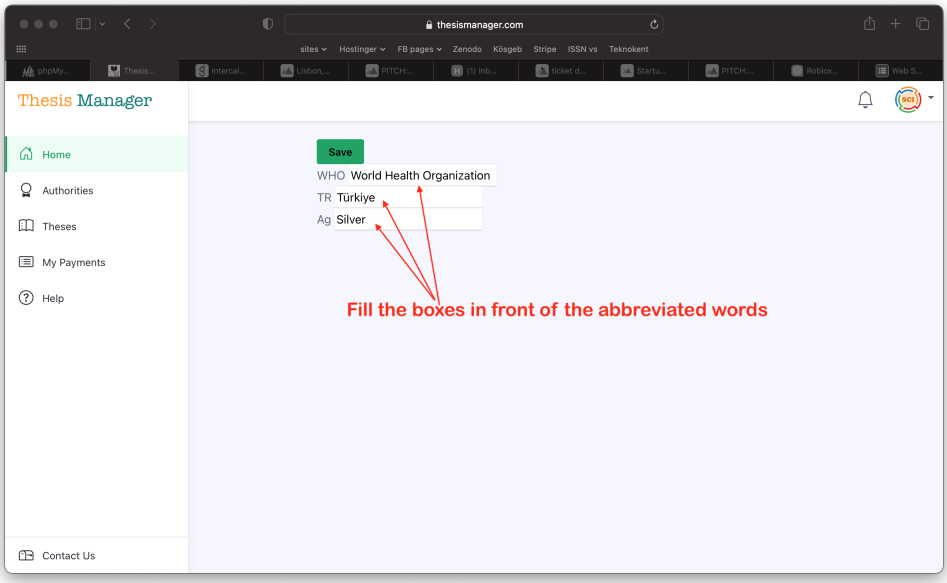

Figure 8.2. Enter the words in front of abbreviated ones

Check the PDF file, there will be a list appeared in the thesis as shown below:

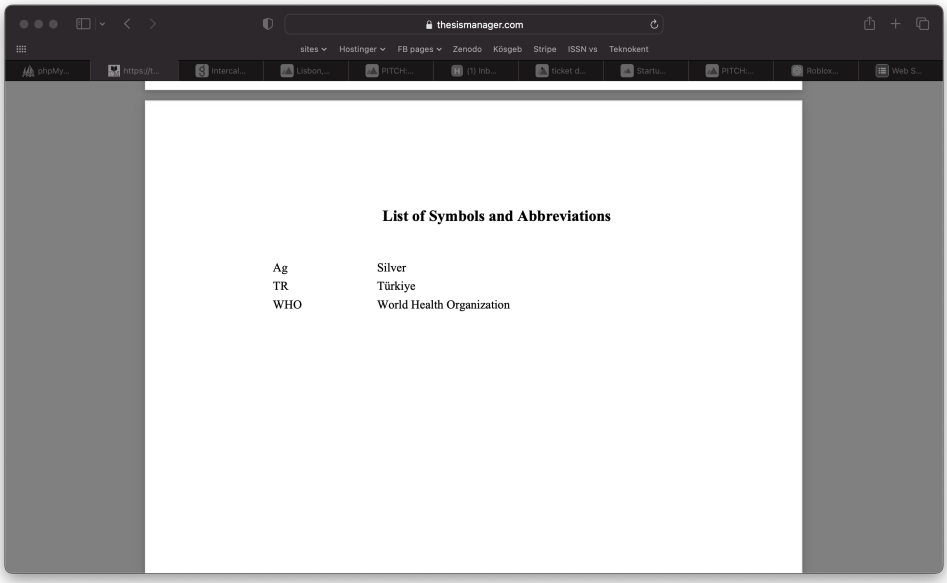

Figure 8.3. List of symbols and abbreviations

References

Brana, M., Cacho, M., Gradillas, A., Pascual-Teresa, B., Ramos, (2001) Intercalators as Anticancer Drugs, *Current Pharmaceutical Design*, 7: 1745-1780.

Son, J., (2011) Online tools for language teaching, *TESL-EJ: The Electronic Journal for English as a Second Language*, 15: -.