

13DTP Project

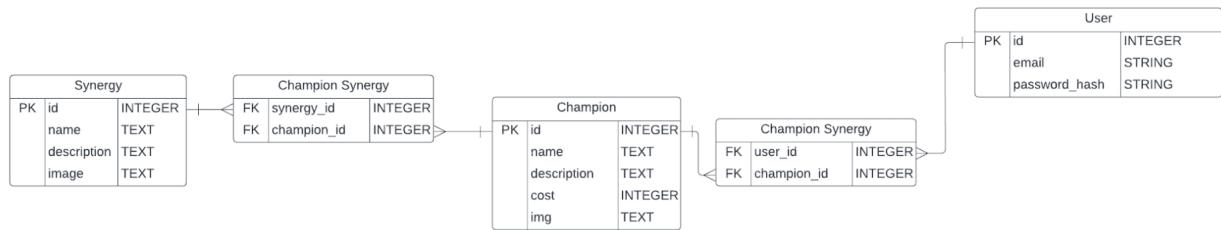
Title: TFT Tactipedia

<https://github.com/charlsjnr/TFT>

Purpose, Function, and End User of my website.

My project is to make a website that can display information about TFT Set 7. A lot of people have been struggling with the new set due to new complicated mechanics. This means that there is a large portion of TFT players who are in need of an information page and strategy guide. Because of this, I have decided to make a database website which is easy to navigate so then people can find the information on team builds fast and delivered cleanly.

Database Notes and Layout

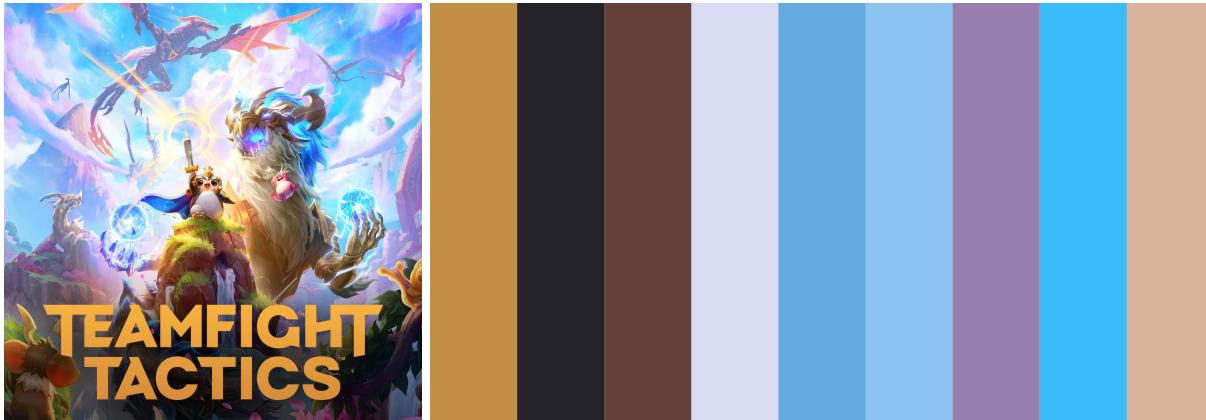


Website Layout and Design

Layout, Colour Choice, and Fonts.

A lot of thought was put into what colour palette, layout and font I decided that I wanted to use. These have been chosen to make the user experience easier and better.

Colour Palette



The colour palette has been chosen from the image above which is a poster made to advertise TFT Set 7. The specific colours may vary from the palette above but will have the same general colour. This is because although the colour works very well in a complex image like the one above, when put into simpler shapes (like a clean looking website) it would look too pale and sad.

- Nav Bar
I will use the purple for the nav bar as it is a nice dark non-monotone colour which makes it easy to not miss when it has a fixed position on the screen.
- Accents
Gold/yellow would be a great colour for accents and larger fonts. This makes smaller things stand out on the page.
- Background
To give the background more life, I have decided to make the background an image. The image will just be the image above. If there were to be some smaller elements that need a background, a pastel or pale blue would suit very well as it won't hurt the eyes too much.
- Text
Text will be good in just black or white. This makes readability much easier especially when the colour is contrasted. Although this may hinder the aesthetics a bit, it's usability is much better.

Fonts

The font I have chosen is Friz Quadrata. This is because the font is similar to the font that TFT uses. This will make the user feel like they are connected to the game. This font

Friz Quadrata
ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
! 0 1 2 3 4 5 6 7 8 9 ?

brings a clean look to the website without it being minimalist.



Reading long text with the Friz Quadrata font can decrease reading speed by a lot so for the secondary font where there is a lot of writing I will use Calibri. Although it is a very boring and common font, it's used widely for a reason. It is easy to read and has a lot of customizability to it because of the font's popular use.

Routes / Function Signatures

Home:

```
@app.route('/')
def home():
```

Directory:

```
@app.route('/directory')
def directory():
```

Champions List:

```
@app.route('/champions')
def champions():
```

Champion:

```
@app.route('/champions/<string:id>')
def championid(id):
```

Synergies List:

```
@app.route('/synergies')
def synergies():
```

Synergy:

```
@app.route('/synergies/<string:id>')
def synergiesid(id):
```

Profile:

```
@app.route('/profile/<int:id>')
@login_required #requires user to be logged in before viewing their
profile
def profile(id):
```

Login:

```
@app.route('/login', methods=['GET', 'POST'])
def login():
```

Register:

```
@app.route("/register", methods=['GET', 'POST'])
def register():
```

Logout:

```
@app.route("/logout")
@login_required
def logout():
```

404 Error Handler:

```
@app.errorhandler(404)
def error404(error):
```

500 Error Handler:

```
@app.errorhandler(500)
def error500(error):
```

401 Error Handler:

```
@app.errorhandler(401)
def error401(error):
```

Database Queries

Login Manager:

```
models.User.query.get(int(id))
```

Champions List:

```
models.Champion.query.all()
```

Champion:

```
models.Champion.query.filter_by(id=id).first()
```

Synergies List:

```
models.Synergy.query.all()
```

Synergy:

```
models.Synergy.query.filter_by(id=id).first()
```

Login:

```
models.User.query.filter_by(email=form.email.data).first()
```

Register:

```
models.User(email=form.email.data)
```

Database Query Testing

What you are testing	How you are testing it	Expected results	Actual Results	Pass/Fail/Notes	Purpose
<code>models.Synergy.query.filter_by(id=id).first()</code>	Running the code	models.Synergy	Returns expected results	Pass	Query all of the Synergies filtered by id.
<code>models.User.query.get(int(id))</code>	Running the code	models.User	Returns expected results	Pass	
<code>models.Champion.query.all()</code>	Running the code	models.Champion	Returns expected results	Pass	Get all the Champions
<code>models.Champion.query.filter_by(id=id).first()</code>	Running the code	models.Champion	Returns expected results	Pass	Query all of the Champions filtered by id.
<code>models.Synergy.query.all()</code>	Running the code	models.Synergy	Returns expected results	Pass	Get all the Synergies
<code>models.User.query.filter_by(email=form.email.data).first()</code>	Running the code	models.User	Returns expected results	Pass	
<code>models.User(email=form.email.data)</code>	Running the code	models.User	Returns expected results	Pass	

Tools Used

IDE

Visual Studio Code is compatible with everything that I need for this project and I am also familiar with how to use VSCode.

Database

SQLiteStudio

Languages

CSS - Website styling (colour, size etc)

HTML5 - Website layout e.g where everything should be.

Python Flask Library - Run and operate the website

SQLiteStudio - Query stuff

General

Google Chrome

- Chrome is very useful in searching for information when I encounter a problem, and also to view the website for testing etc.

Git

- version control service.

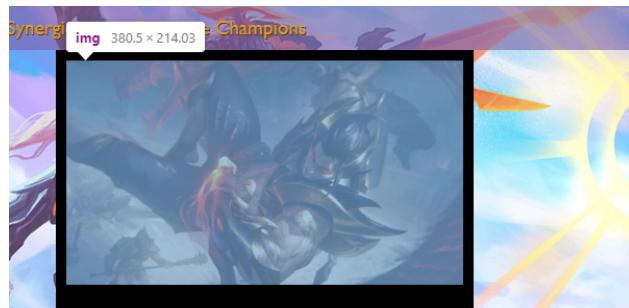
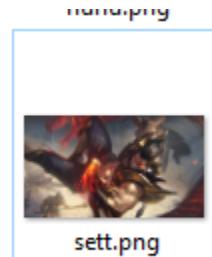
Lucidcharts

- ERD

Data Integrity

Source

The images used on the website are saved into the static folder where it can get linked to the database. These images are named as [champion].png which makes it easier to get the image on to the website.



```
<body>
  <header>...</header>
  <nav>...</nav>
  <div class="column side"></div>
  <div class="column middle" style="color:white;background-color:black;font-family: Calibri, sans-serif; text-align:center; padding: 10px;">
     == $0
    <h1>SETT</h1>
    <div>...</div>
  </div>
</body>
</html>
```

Checking Links

This is the information displayed to the user when a specific champion is selected.

localhost:5000/champions/1

SETT

Add to favourites

COST: 1

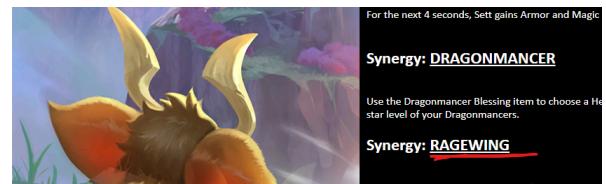
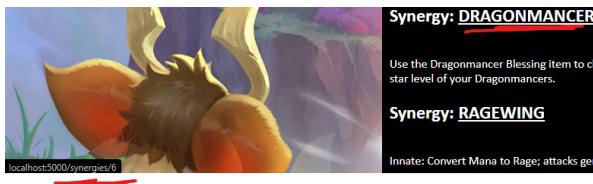
For the next 4 seconds, Sett gains Armor and Magic Resist, and every other punch deals bonus physical damage.

Synergy: DRAGONMANCER

Use the Dragonmancer Blessing item to choose a Hero. The Hero gains massively increased Health and Ability Power, which increases by 20% per star level of your Dragonmancers.

Synergy: RAGEWING

Innate: Convert Mana to Rage; attacks generate 15 Rage. After casting an Ability, enrage for 4 seconds: +25% Attack Speed but can't gain Rage.



This is hovering over DRAGONMANCER

This is hovering over RAGEWING

Database

	id	name	description	cost	image
1	1	SETT	For the next 4 seconds, Sett gains Armor and Magic Resist, and every other punch deals bonus physical damage.	1	sett
<hr/>					
	id	cid	sid		
1	1	1	6		
2	2	1	22		
<hr/>					
	id	name	description	image	
1	6	DRAGONMANCER	Use the Dragonmancer Blessing item to choose a Hero. The Hero gains massively increased Health and Ability Power, which increases by 20% per star level of your Dragonmancers.	dragoonmancer	dragoonmancer
<hr/>					
	id	name	description	image	
1	22	RAGEWING	Innate: Convert Mana to Rage; attacks generate 15 Rage. After casting an Ability, enrage for 4 seconds: +25% Attack Speed but can't gain Rage.	ragewing	shyvana

Display

Images displayed on the website and the links lead to the right place. The images line up to what should be in the database and so do the links. This means that the data is being displayed correctly.

Testing

Testing Routes

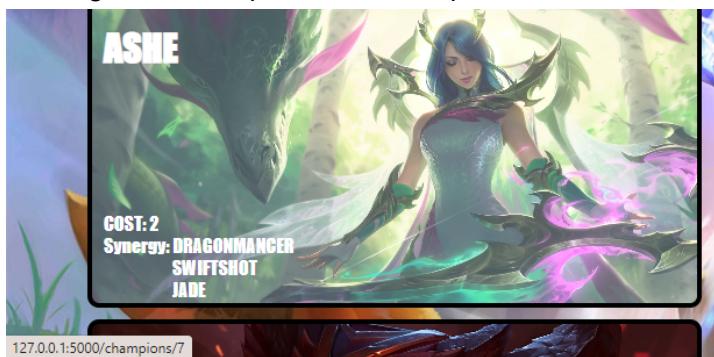
The logo button takes me to the app route for “/”



Champions button takes me to the “/champions” route



Clicking on a champion on a champions route takes me to “/champipns/<id>”

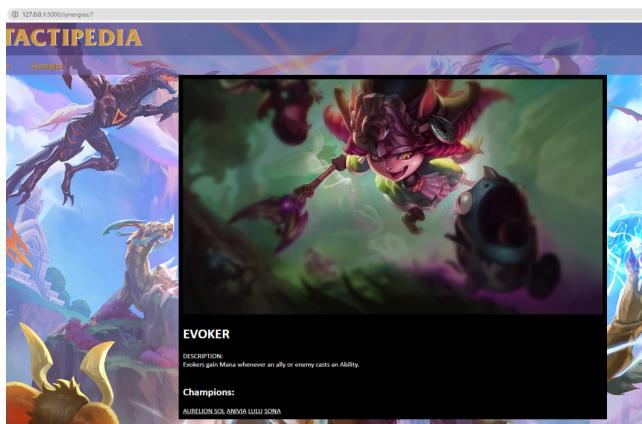
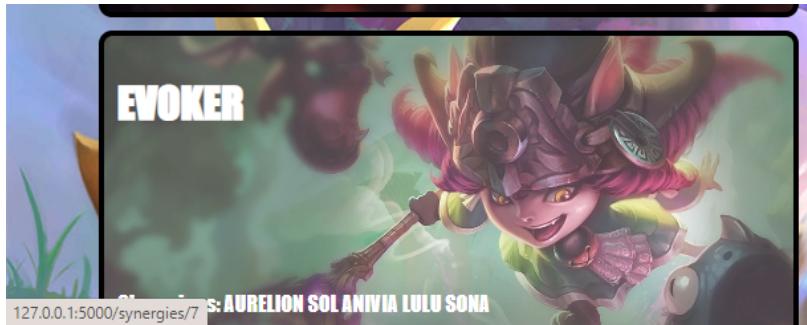


A screenshot of the Tactipedia page for Ashe. The page has a header "7.0 TACTIPIEDIA" with navigation icons. Below the header, there are two large images: one of a dragon-like creature on the left and one of Ashe's Dragonmancer skin on the right. The main content area shows the champion card for Ashe again, with the title "ASHE" and the ability description: "Ashe fires a volley of arrows. Enemies hit by at least 1 arrow take magic damage and suffer 30% reduced Attack Speed for 3 seconds." Below this, it says "Synergy: DRAGONMANCER". At the bottom of the page, there is a note: "Use the Dragonmancer Blessing item to choose a Hero. The Hero gains massively increased Health and Ability Power, which increases by 20% per". The URL "127.0.0.1:5000/champions/7" is visible at the bottom.

Synergies button takes me to the “/synergies” route

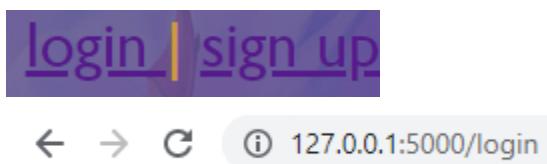
A screenshot of the Tactipedia homepage. The page has a large, stylized title "7.0 TACTIPIEDIA" in gold letters. Below the title, there are two buttons: "Champions" on the left and "Synergies" on the right. At the bottom, there is a navigation bar with icons for back, forward, and refresh, followed by the URL "127.0.0.1:5000/synergies".

Clicking on a synergy takes me to “/synergies/<id>”



And clicking on a champion in “/synergies/<id>” takes me to “/champions/<id>”

Login button takes me to the “/login” route

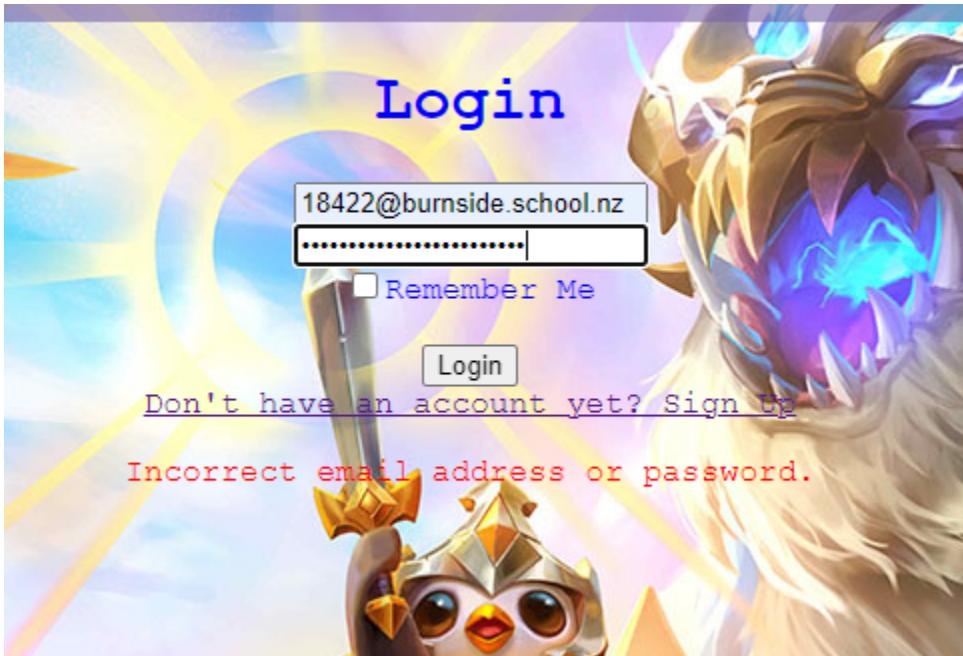


The register now button in login takes me to “/register”

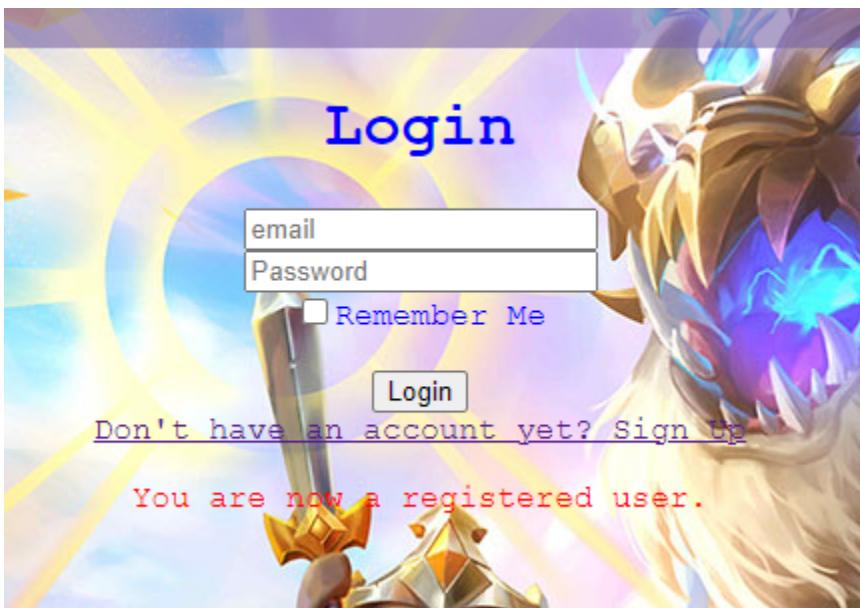
Sign up button takes me to the “/register” route



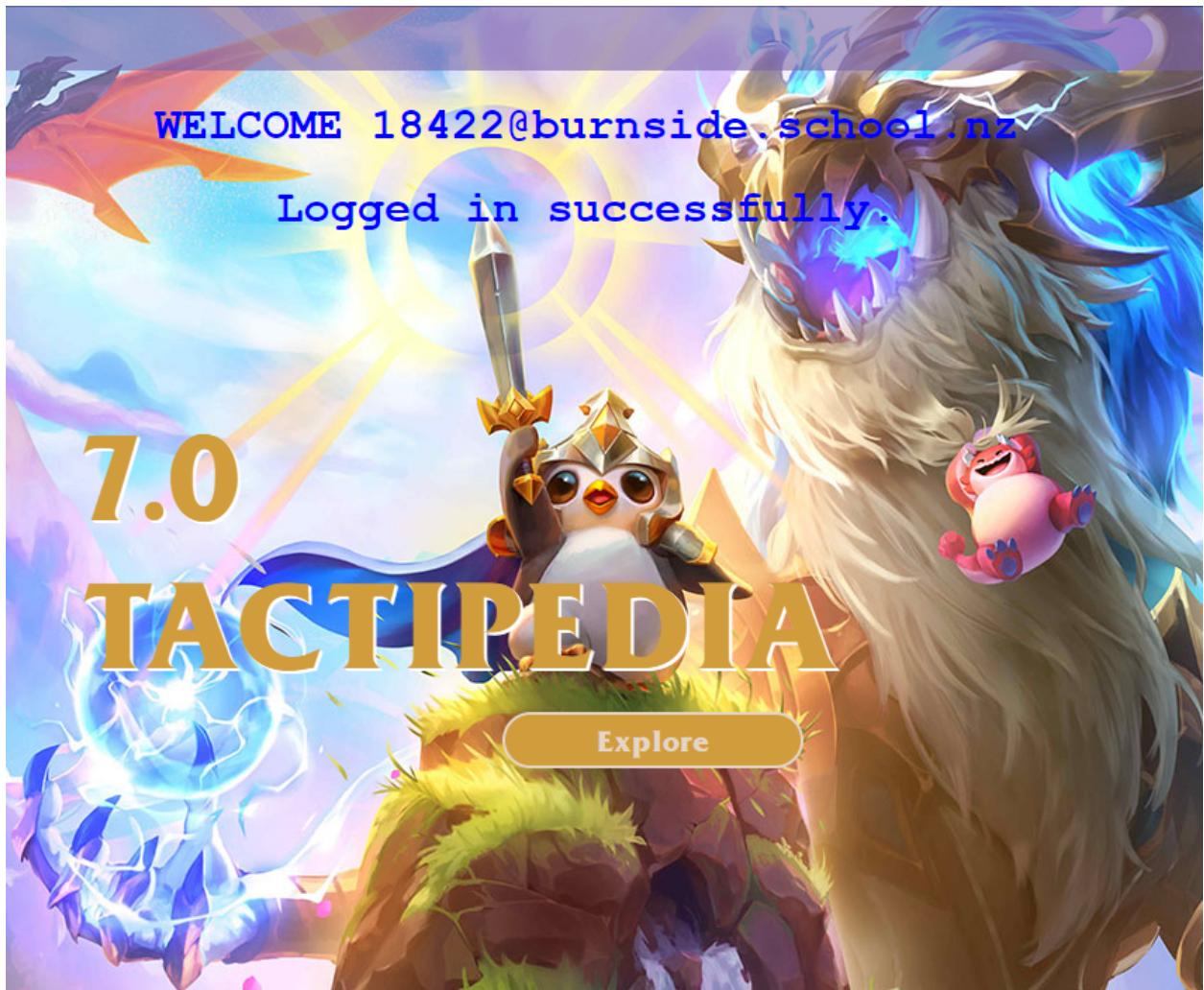
Testing Login and Register



Testing when the user doesn't exist in the database and also when the password is incorrect.



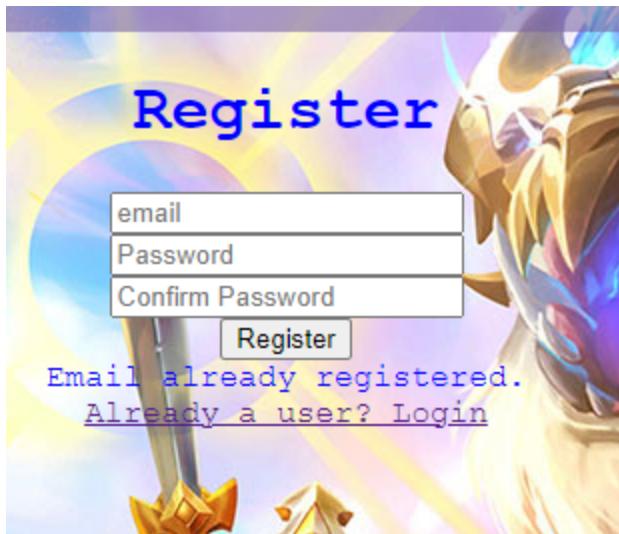
Testing when valid email and password are entered to register



Testing when the user successfully logs into the website.

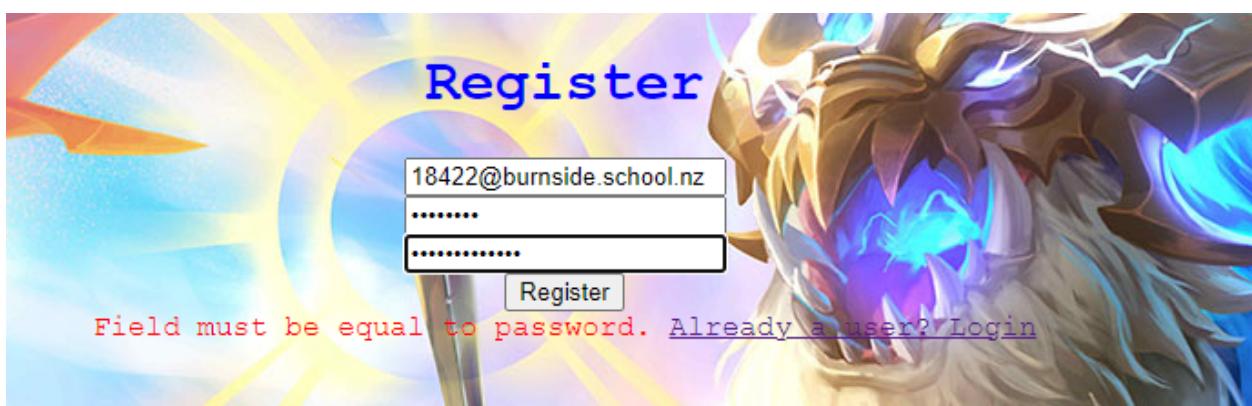
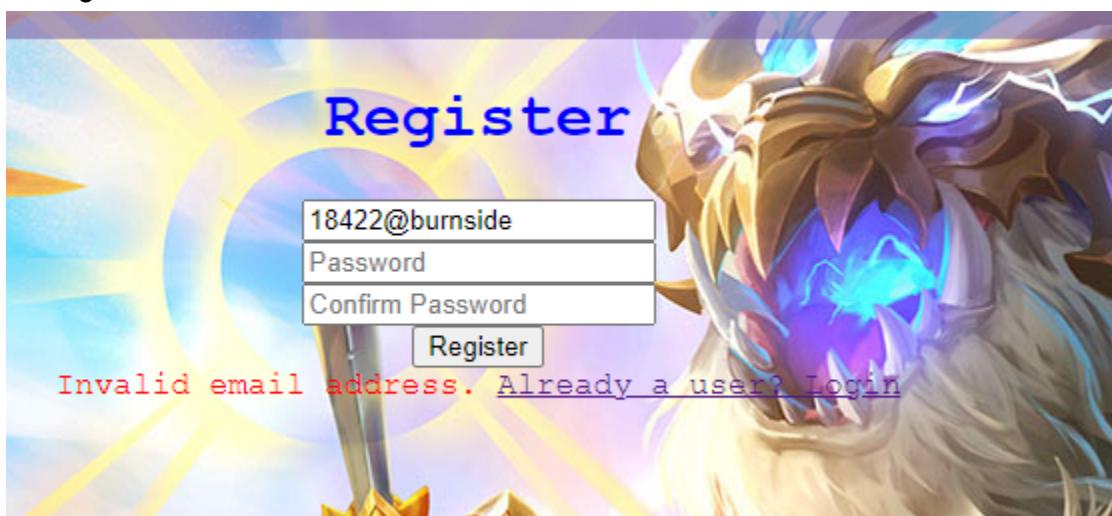
Testing logout





Testing when the email already exists in the database

Testing when invalid email is entered



Testing when "confirm password" is different from password.

Testing adding to my team

The screenshot shows a mobile game interface with a dark background. At the top, the word "SETT" is displayed in large white letters. Below it, a message says "Champion added to my team". A button labeled "Remove from my team" is visible. Further down, the text "COST: 1" is shown, followed by the description "For the next 4 seconds, Sett gains Armor and Magic Resist, and every other punch deals bonus physical damage." Below this text is a table with two columns: "user id" and "champion id". The first row contains the values "1" and "8" respectively. A URL bar at the bottom shows the address "127.0.0.1:5000/champions/1".

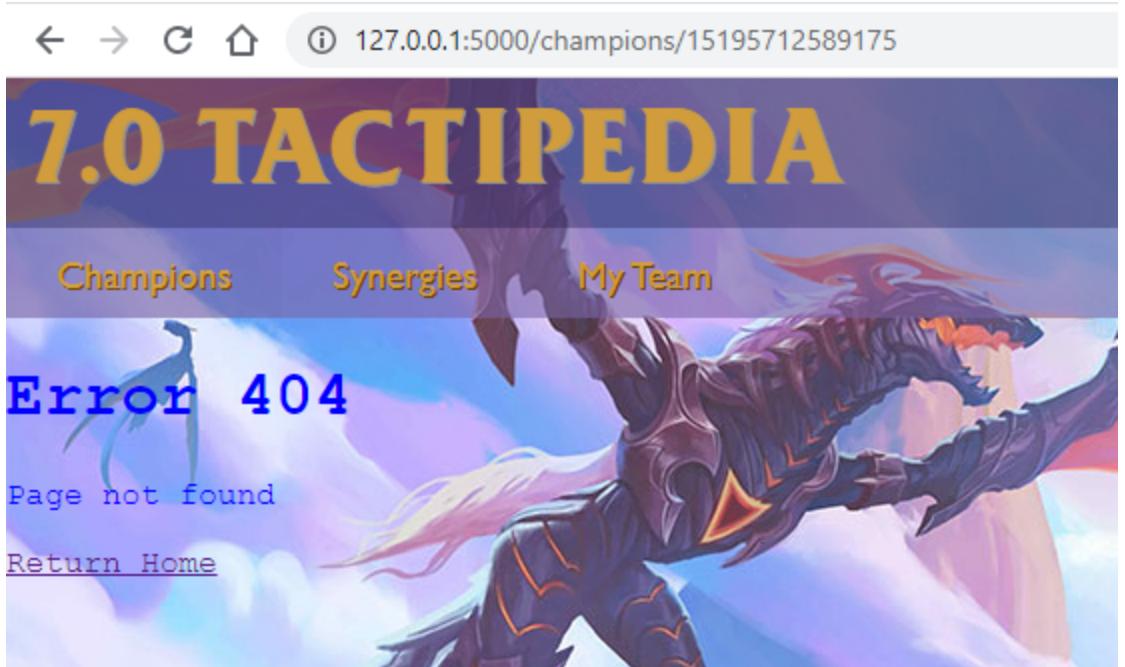
Same champion is added to the many to many so it works.

The screenshot shows a mobile game interface with a dark background. At the top, the word "SETT" is displayed in large white letters. Below it, a message says "Champion removed to my team". A button labeled "Add to my team" is visible. Further down, the text "COST: 1" is shown, followed by the description "For the next 4 seconds, Sett gains Armor and Magic R". Below this text is a table with two columns: "user id" and "champion id". The first row contains the values "1" and "8" respectively. A URL bar at the bottom shows the address "127.0.0.1:5000/champions/1".

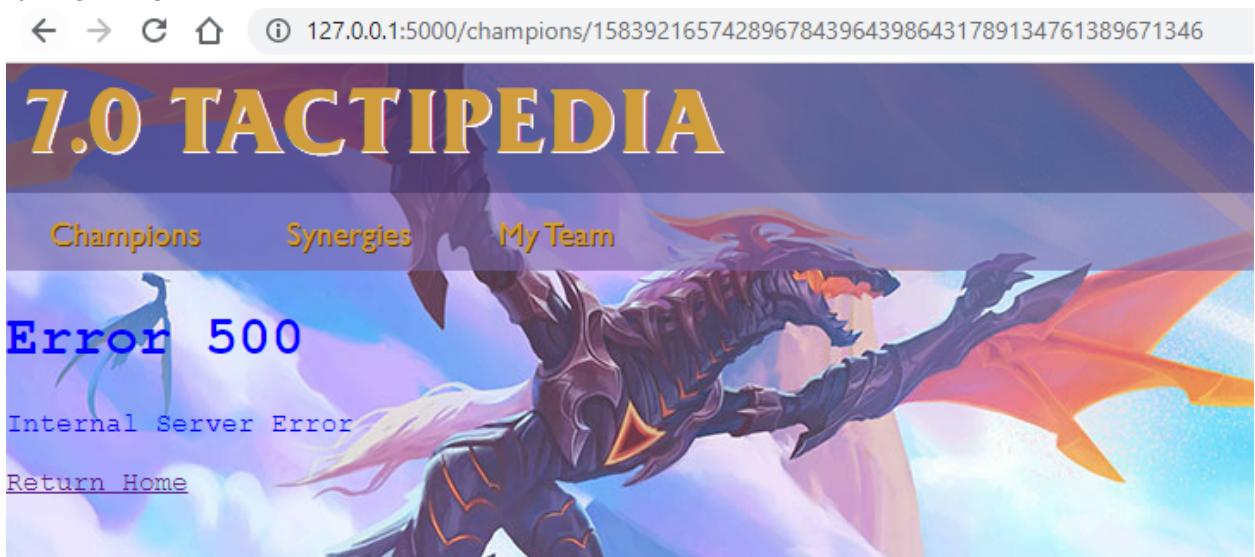
Removed the entry in my many to many so removing team members works.

Typing In URL

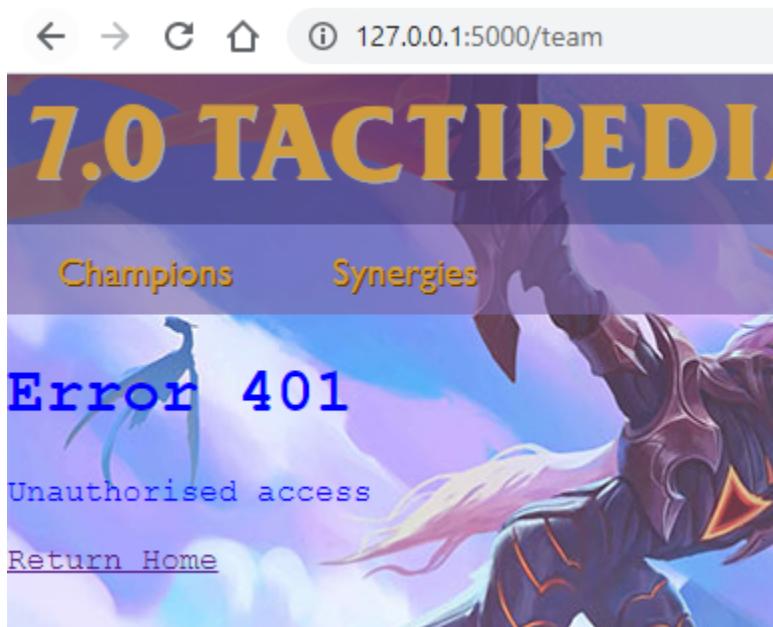
Typing champions that don't exist



Typing in big numbers



Going to my team while not authenticated



Relevant Implications

Website Relevant Implications

Aesthetics

Aesthetics covers everything that has to do with what the website looks like. From its colour scheme, fonts and images used to the layout and structure of the website. Maintaining good aesthetics is important to the website because it creates good impressions for the user and will have an overall positive experience when browsing the website. My website addresses aesthetics with a somewhat minimalistic design while maintaining a colourful background. The colours are consistent throughout the website so then sudden changes in colour won't throw off the user's experience. Having too many different colours can overwhelm the user but too little colours feels bland. The layout of the website makes it very easy to find what you are looking for as it follows a very standard layout for the navigation bar.

Usability

Usability refers to the user's experience that involves consistency, error prevention, error recovery and efficiency. Having a usable website is important as keeping things consistent and preventing errors is key to keeping a good user's experience. My website tackles usability by having features to recover from errors. This means that when the user gets on to a page that does not exist it will take them to an error page that will return them back to the website. The

website is also consistent because when something is clickable, the cursor will change and also the clickable buttons will change as well; whether that be change in colour or size.

Database Relevant Implications

Intellectual Property

Intellectual property is a category of property which includes intangible creations, copyrights, trademarks, patents, etc. Other people will not be able to use your intellectual property unless given explicit permission by you.

All of my images are courtesy of Riot Games. None of the images I have used are copyrighted by Riot Games and are still under fair-use policy. The fair-use policy means that I am able to use some of Riot Game's images without needing to ask for permission. The images are used in good nature. I'm not infringing on their patent, or counterfeiting their trademarks/copyrights, and it is most definitely not a trade secret if they post it publicly. Although the fair-use policy does not apply in NZ, Riot Games is based in America where the fair-use policy is in use. For these reasons, I have the prerogative to use the images on my website.

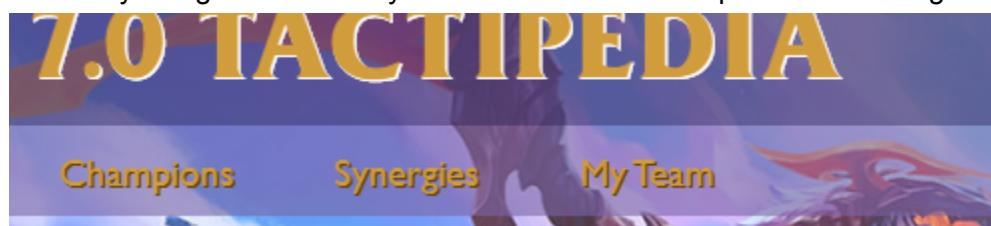
Privacy

Privacy is making sure that the collected user information is secure. This means that only the user can access their own information. This is done through my website by hashing the password. Hashing the password makes it so then if someone is able to access the database, they won't be able to read the passwords of the users because it is encrypted.

HCI (Human Computer Interaction)

Consistency and standards

Consistency and standards mean that reoccurring elements on the page remain the same, each one of my navigation bars stays in the same order and place when navigating to other pages.

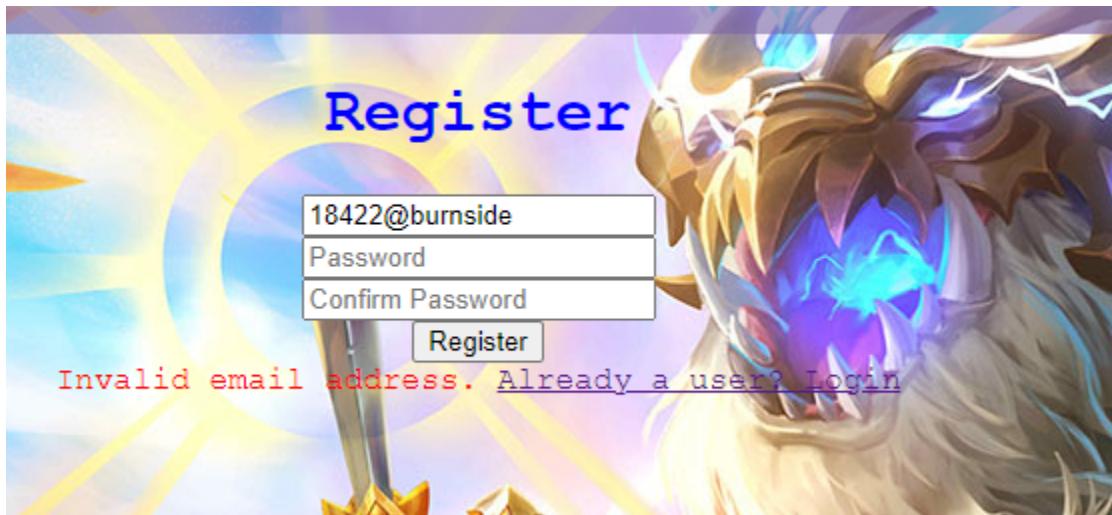


Aesthetic and minimalist design

Aesthetics refers to how the website looks, and how visually appealing it is to the user. It can provide a memorable experience which helps you differentiate this website from other websites. A well designed website also makes it more credible. My website has a unique colour scheme and is very minimalistic when displaying data only displaying relevant information at first and then more information can be accessed with clicks, this reduces colour and improves user experience.

Help users recognize, diagnose, and recover from errors

My website helps users recover from errors by showing error messages.



User control and freedom

I give users ways to exit unwanted actions by adding navigation buttons on every page so they can navigate back to the home page whenever they don't want to do something on my website.

