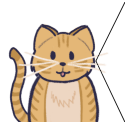# readme.pdf

 Welcome to the **Suite Cats** companion!

Made by Jie Cai, Min Kyu Park, Mikhaela Aguilar, and Matthew Rupchan

These files are also included in: https://github.com/MatthewRupchan/SuiteCats

index.php
- Acts as our main page/directory to the website **Suite Cats**
- If not logged in…
    - The cat mascot bubble speech on the top right of the page will contain:
        - Username textbox (for user's username input)
        - Password textbox (for user's password input)
        - Log In button (for if the user wishes to Log In, sets session variables for the user)
    - You can only view the sign up page (accessible by the sign up button at the bottom of the index page)
    - You cannot view the other pages: **adoption.php**, **suite.php**, **marketplace.php**.
- If logged in…
    - Beside the mascot there is a box with user details
        - Includes the user's chosen username
        - Includes the user's amount of in game money
        - A logout button is provided which destroys the session
    - You can now view the other pages:
    - Adoption Center - redirects to **adoption.php**
    - Suite - redirects to **suite.php**
    - Marketplace - redirects to **marketplace.php**
    - The signup button below the page is now disabled (you cannot access the **sign_up.php**)

sign_up.php
- The sign up form of the **Suite Cats** website
- If not logged in/ logged in…
    - Contains an input username textbox
    - Contains an input email textbox
    - Contains an input password textbox
    - Contains an input verify password textbox
    - Create Account button
        - Within the page, it attempts to validate the username…
            - If there is no input for the username, javascript validation appears below the textbox with the text: "A username must be provided."

- If the input username is more than 99 characters, javascript validation appears below the textbox with the text: "A username must be less than 100 characters."
- If the input username contains characters beyond letters and numbers, javascript validation appears below the textbox with the text: " A username must contain only letters and numbers."
- If the username already exists, the input is denied and a php error message appears above the textbox with the text: "Username has already been taken".
- If all username passes the criteria above
  - Within the page, it checks to see if the email…
    - If there is no input for the email, javascript validation appears below the textbox with the text: "A username must be provided."
    - If input email is in legitimate email format (verification of this format is in line 49 of *sign_up.js*), if it does not have the proper format, javascript validation appears below the textbox with the text: "A valid email must be provided"
  - Within the page, it checks to see if the password/ verify password…
    - If there is no input for the password, javascript validation appears below the textbox with the text: "A password needs at least 8 characters".
    - If the input password is more than 99 characters, javascript validation appears below the textbox with the text: "A password must be less than 100 characters."
    - If the input password and the input verify password do not match, javascript validation appears below the textbox with the text: "Passwords don't match".
- If any one of the javascript validation error messages appear, we do not create the account into the database.
- Otherwise, if all input has been validated, we create the account with the username, password, email and starting money (preset $50 value) into our database table: *user_table*
- We then redirect the user to the main page (**index.php**)

marketplace.php
- Facilitates users purchasing cats from other users
- If not logged in…
  - The user is redirected to the main page (**index.php**)
- If logged in…
  - Beside the mascot there is a box with user details
    - Includes the user's chosen username
    - Includes the user's amount of in game money
  - A logout button is provided which destroys the session
- At the top of the page there is a menu bar to redirect to other pages

- Clicking the "Suite Cats" header redirects the user to **index.php**
- Clicking Adoption redirects to **adoption.php**
- Clicking Suite redirects to **suite.php**
- Clicking Marketplace redirects to **marketplace.php**
- All the cats with a set cost variable could be displayed
    - Line 48 begins a loop through all these cats and will pick out which are to be displayed on the page
    - Only 4 cats are to be displayed on each page at a time
        - Cats are totally ordered by their cat id, so the more recently generated cats will be listed first
    - The specific page to be viewed is set on entry to the page either by the GET variable or defaulting to 1
    - Buttons on the page are available for the user to view a new display page
        - The buttons decreasing the page amount will be disabled if the page value is at its lowest value of 1
        - The buttons increasing the page value will disable if the page value is the same as the total number of pages
        - The pages execute by calling the php script **pages_helper.php**
            - This file takes in the page number value, and the webpage name
            - It will return to the indicated page name and set the page as a GET variable
    - All of the cat's details will be displayed on a row in the marketplace.
- Buying a cat can be initiated by pressing the button on the cat for sale's row
    - If the user has enough money and doesn't own the cat, the button is labelled "Buy" and will initiate a function to transfer money from the purchaser's account to the seller's account, change the cat's ownership from the seller to the purchaser, and remove the cat from the marketplace by setting their cost to null.
        - Upon purchase, redirect the user to the newly purchased cat's interaction page (**interaction.php**)
    - If the user doesn't have enough money to purchase a cat, the button will be disabled and will read "You can't afford this cat."
    - If the cat belongs to the purchaser, the button will be disabled and will read "This is your cat."
- If there are no cats for sale...
    - One of the sets of page buttons will be removed
    - A label indicating no cats are for sale will be present

adoption.php
- Facilitates generating new cats for users to purchase
- If logged in...
    - Beside the mascot there is a box with user details
        - Includes the user's chosen username
        - Includes the user's amount of in game money

- A logout button is provided which destroys the session
- If the user is not logged in…
    - Redirect the user to **index.php**
- At the top of the page there is a menu bar to redirect to other pages
    - Clicking the "Suite Cats" header redirects the user to **index.php**
    - Clicking Adoption redirects to **adoption.php**
    - Clicking Suite redirects to **suite.php**
    - Clicking Marketplace redirects to **marketplace.php**
- The page content will display 3 cats
    - These cats will be indicated in the database with "owned" variable set to null or false or 0
    - If less than 3 cats are found that are not owned…
        - A new cat is generated with its attributes chosen from lists of possibilities and defaults
        - The check is done on Line 38
        - The code runs to Line 85
    - The cats are displayed on 3 panels with their information listed, an image present, and a button to allow the cats to be adopted
    - The adopt button is disabled if the user doesn't have enough money
    - When the adopt button is pressed…
        - The script will double check if the user still has enough money to purchase the cat
        - The cat's owner will be updated to the purchaser and their owned variabel will be set to true or 1
        - The user's money will be reduced by $50
        - The user will be redirected to **suite.php**

suite.php
- Facilitates viewing all of the cats a user owns
- If logged in…
    - Beside the mascot there is a box with user details
        - Includes the user's chosen username
        - Includes the user's amount of in game money
    - A logout button is provided which destroys the session
- At the top of the page there is a menu bar to redirect to other pages
    - Clicking the "Suite Cats" header redirects the user to **index.php**
    - Clicking Adoption redirects to **adoption.php**
    - Clicking Suite redirects to **suite.php**
    - Clicking Marketplace redirects to **marketplace.php**
- If not logged in, the user is redirected to **index.php**
- The page content has a left hand pane land a right hand panel, structured in tables
    - The left hand panel contains a reduced set of cat information
        - The cat's name is displayed
        - The cat's image is displayed
        - A link to the cat's interaction page is provided

- Text indicating when the most recent interaction with this cat was is displayed
- The name is contained in a textbox with editing disabled
    - Textbox editing can be enabled by pressing the pencil icon to the right of the textbox
    - This calls **rename.js** which will change the text box outline to yellow and enable editing
    - The user can finish editing by pressing the pencil icon again
    - **rename.js** will validate that the name contains only characters, confirm that the name isn't the same as it was before, and will confirm with the user that they really wish to change their cat's name, before submitting the form
        - If any of the cases fail, the form is not submitted, but the textbox is disabled and the name reset to its original
    - The form submits to **rename_cat_helper.php** which will update the cat's name in the database before returning to **suite.php**
- The right hand panel contains a 2 x 3 table of cats owned by the user
    - If the user owns more than 6 cats, there will be more than one page which can be navigated with page buttons
        - The buttons decreasing the page amount will be disabled if the page value is at its lowest value of 1
        - The buttons increasing the page value will disable if the page value is the same as the total number of pages
        - The pages execute by calling the php script **pages_helper.php**
            - This file takes in the page number value, and the webpage name
            - It will return to the indicated page name and set the page as a GET variable
    - Each cat will be displayed with their image and name
    - Clicking a cat's image will replace the information on the left hand panel to be this cat's information
        - The information on the left hand panel defaults to the first cat in the page's table
        - The request for a change is sent to **suite_album_focus_ajax.js** which in turn communicates with **cat_info_for_suite.php**
            - The cat info file requires a cat id as an input
            - It will return cat information in JSON format
            - The array returned will contain the image URL at index 0, the cat name at index 1, and the interaction timer at index 2
        - The information is applied to the left hand panel appropriately without a page reload
- If the user has no associated cats, the page will look different
    - The left hand panel will provide a link to **adoption.php** and encourage the user to get their first cat

- The right hand panel will be empty except for the disabled page buttons

Interaction.php
- Facilitates interacting and viewing all the details of an individual cat, as well as putting them on sale in the marketplace
- If logged in…
    - Beside the mascot there is a box with user details
        - Includes the user's chosen username
        - Includes the user's amount of in game money
    - A logout button is provided which destroys the session
- At the top of the page there is a menu bar to redirect to other pages
    - Clicking the "Suite Cats" header redirects the user to **index.php**
    - Clicking Adoption redirects to **adoption.php**
    - Clicking Suite redirects to **suite.php**
    - Clicking Marketplace redirects to **marketplace.php**
- The page may deny a user access if they don't meet certain conditions
    - The user must be logged in
        - If not they are redirected to **index.php**
    - There must be a valid cat id provided in a get variable to the page
        - If not the user is redirected to **suite.php**
    - The cat with the associated cat id must be owned by the logged in user
        - If not, the user is redirected to **suite.php**
- Page content is divided into three sections
    - The left hand side is filled out with all of the cat's information
    - The center contains an image of the cat and a selling form
        - If the cat is already on sale, a button is present to take the cat off sale by setting the cost to null. Also, there is a link to **marketplace.php**
        - If the cat is not on sale, the form has a numeric input and a sell button
            - The numeric input only accepts values between 1 and 9999
            - The sell cat button will set the cat's cost to the value in the numeric input, putting the cat on sale
    - The right hand side contains 4 buttons and 4 labels
        - Each button represents an "interaction" that can be done with a cat
        - The interactions call the php script **process_interaction_requests.php** This script takes in a cat id and an interaction type
            - It will increase the user's money by $5 or $10
                - The interaction type is compared against the cat's personality. If compatible the value gained is $10, otherwise $5
            - The script will set a timestamp for the interaction to be now and return to the interaction page
        - The button will be disabled if the associated interaction timestamp is less than 15 minutes (900 seconds) before the time the page was loaded

- The labels associated with each button will display what time the button will be enabled, or they will display "Ready!" if the button is already enabled

Included:

Folders - webpages (discussed above)

SuiteCatScreenshots
- The screenshots used in the submission to URCourses

cat_images:
- **icons**
    - Adoption_Icon.png
        - Used on **index.php** for the link to **adoption.php**
        - Used on **adoption.php** as a stylistic element
    - Arrow pictures (ArrowL1.png, ArrowL2.png, ArrowR1.png, ArrowR2.png)
        - Used for page forward and backwards
        - Used in **marketplace.php**
        - Used in **suite.php**
    - Market_Place_Icon.png
        - Used on **index.php** for the link to **marketplace.php**
        - Used on **marketplace.php** as a stylistic element
    - Mascot.png
        - Present on all pages excluding **sign_up.php** as a stylistic element
    - Pencil.png
        - Used on **suite.php** on the rename cat button
    - Small_Roads.png
        - Used on **index.php** as stylistic elements
    - Submit_Button.png
        - Used as a stylistic element on the submit form button in **sign_up.php**
    - Suite_Icon.png
        - Used on **index.php** for the link to **suite.php**
    - background_effects.gif
        - The stars visible on every php page in the header
        - Used in **interaction.php** in the cat image's background
    - cat_paws.gif
        - NOT USED IN FINAL
- **long_hair**
    - Collection of cat images (.png format)
    - Organized by the potential cat colours (Black, Dark Brown, Grey, Hima, Light Brown, Orange, Socks, White)
    - Each subfolder contains a cat image named with the template...
        - LH_Colour_EyeColour_TailType.png

- Eye colours include Blue, Black, Brown, Green, Two, Yellow
- Tail types include Fluffy, Smooth, Stubby
- Colour will match the folder it is in
  - Light brown will be LBrown
  - Dark brown will be DBrown
- Cat images are used in **adoption.php**, **marketplace.php**, **suite.php**, and **interaction.php**
- **medium_hair**
  - Collection of cat images (.png format)
  - Organized by the potential cat colours (Black, Dark Brown, Grey, Hima, Light Brown, Orange, Socks, White)
  - Each subfolder contains a cat image named with the template...
    - MH_Colour_EyeColour_TailType.png
    - Eye colours include Blue, Black, Brown, Green, Two, Yellow
    - Tail types include Fluffy, Smooth, Stubby
    - Colour will match the folder it is in
      - Light brown will be LBrown
      - Dark brown will be DBrown
  - Cat images are used in **adoption.php**, **marketplace.php**, **suite.php**, and **interaction.php**
- **short_hair**
  - Collection of cat images (.png format)
  - Organized by the potential cat colours (Black, Dark Brown, Grey, Hima, Light Brown, Orange, Socks, White)
  - Each subfolder contains a cat image named with the template...
    - SH_Colour_EyeColour_TailType.png
    - Eye colours include Blue, Black, Brown, Green, Two, Yellow
    - Tail types include Fluffy, Smooth, Stubby
    - Colour will match the folder it is in
      - Light brown will be LBrown
      - Dark brown will be DBrown
  - Cat images are used in **adoption.php**, **marketplace.php**, **suite.php**, and **interaction.php**
- placeholder.png
  - NOT USED IN FINAL PRODUCT

css:
- **adoption.css**
  - Defines the look for **adoption.php**
- **index.css**
  - Defines the look for **index.php**
- **marketplace.css**
  - Defines the look for **marketplace.php**
- **sign_up.css**
  - Defines the look for **sign_up.php**
- **suite.css**

- Defines the look for **suite.php**
- **interaction.css**
  - Defines the look for **interaction.php**
- **suite.css**
  - Defines stylization used on many different pages
  - Common elements include...
    - The background colouring
    - The star effects in the webpage header
    - The size of the webpage header
    - The website title
    - The menu
    - The website mascot cat
    - The user information box
    - The website footer
    - Button styling
    - Icon sizing (affects **marketplace.php** and **adoption.php**)

javascript:
- **rename.js**
  - Used in **suite.php**
    - Enables/disables the name textbox
    - Validates the new name chosen
    - Confirms with the user if the new name is what they want to use
- **sign_up.js**
  - Used by **sign_up.php**
    - Validates the username, password, and email fields
    - Prevents form submission if invalid
    - Displays error messages on page to indicate what is invalid
- **sign_up_listener.js**
  - Used by **sign_up.php**
    - Triggers **sign_up.js** actions
- **suite_album_focus_ajax.js**
  - Called by **suite.php**
  - Calls on **cat_info_for_suite.php**
    - Puts information returned into the left hand panel in **suite.php**

phpscripts
- **cat_info_for_suite.php**
  - Used by **suite.php** when called upon by **suite_album_focus_ajax.js**
  - Provides information about a specific cat
    - Returns cat image URL
    - Returns cat name
    - Returns cat interaction timestamp
  - Returns values in JSON format
- **pages_helper.php**

- - Used by **marketplace.php** and **suite.php**
  - Makes changing pages convenient
  - Takes the requesting page and the new page as inputs
  - Returns to the requesting page with the new page to load with
- **process_interaction_requests.php**
  - **Used by interaction.php**
  - Takes a cat id and an interaction type as an input
  - Updates user money based on the interaction performed and the personality of the cat
  - Updates the cats interaction timestamp
  - Returns to the interaction page that sent for it
- **rename_cat_helper.php**
  - Used by **suite.php** when the rename form is submitted
  - Submits a requested new name to the database
  - Returns to the suite page after completion
- **sell_cat_helper.php**
  - Used by **interaction.php**
  - Called when the sell cat form is submitted
  - Updates an indicated cat's cost value
  - Returns to the interaction page that sent for it

databasefiles:
- **READMEfortest.pdf**
  - Provides the first instruction of connecting to the database,
  - Move the sq: testsqlconnection.php into the wamp64 application, folder www.
  - Then open up phpMyAdmin and enter the localhost/testsqlconnection.php on browser, it should connect successfully
- **WAMPdl_steps.pdf**
  - Provides image instruction on how to download Wampserver64
  - Note: make sure to download the default installation
  - Then, after downloading, access the icon on your taskbar via left click and select phpMyAdmin.
    - This will redirect you to the localhost/phpmyadmin
    - There, you can create your database, and begin to fill it with your desired tables:
      - For SuiteCats, we have our database (catdatabase) with tables:
        - cat_page - contains the elements of each cat.
        - marketplace - contains the elements of the cat, as well as their price and sale timestamp on the marketplace.php
        - user_table - contains the elements of the user
- **queryactions.txt**
  - Contains the examples/references of queries used on the webpages:

- Note: these queries aren't the exact queries that were implemented in the webpages. Rather, these act as rough templates.
- Add more users (this inserts the validated user into our user_table)
- Update values from user_table (this updates the money we earn from interactions into our user_table)
- Validation checked (this performs a validation check to see if the user exists on our table)
- Add more cats to cat_table (this adds the generated cats from adoption.php into cat_table)
- Remove a cat from cat_table (not used directly)
- Sort cats (not used directly, we decide to sort our cats by their cat id - so the newest cats would appear on the front page of the marketplace)
- **querylist.txt**
  - Contains the sql statements in a txt file
    - create Table **user_table**
      - **PRIMARY KEY: user id** is an INT variable of max 11 character size (Also our primary key when referring to this table)
      - **user_name** is a CHAR variable of max 255 character size (though our signup.php, javascript validation only allows for 100 max size, so we never exceed this value).
      - **user_password** is a CHAR variable of max 255 character size (though our signup.php, javascript validation requires for passwords minimum size to be equal or greater to 8 characters)
      - **emai**l is a CHAR variable of max 255 character size (through our signup.php, javascript validation enforces a specific email format).
      - **money** is a INT variable of max 11 character size (through our signup.php, we start with the value$50 and then this value gets changed from our interactions with pages: adoption.php, interactions.php, and marketplace.php)
    - create Table **marketplace** (NOT USED IN FINAL)
      - **PRIMARY KEY: market_id** is an INT variable not NULL (there is only ever one marketplace so we don't worry about creating multiple market ids)
      - **cat_id** is an INT variable of max 11 characters
      - **cat_price** is an INT variable of max 11 characters (through our interaction.php, we set a max value of the input price textbox as "9999", meaning we can't exceed more than 4 length integer character prices)

- **sale_timer** is a TIMESTAMP variable (takes note of when the user sells their cat from the interaction.php page to the marketplace.php)
    - create Table **cat_table**
        - **PRIMARY KEY: cat_id** is an INT variable of max 11 characters and it AUTO_INCREMENTS (each cat has their unique id during cat generation)
        - **FOREIGN KEY: user_id** is an INT variable of max 11 characters (this is referring to user_table's key user_id)
        - **eye_colour** is a CHAR variable of max 255 character size
        - Tail_type is a CHAR variable of max 255 character size
        - **hair_length** is a INT variable of max 11 characters
        - **body_colour** is a CHAR variable of max 255 characters
        - **tail_type** is a CHAR variable of max 255 characters
        - **personality** is a CHAR variable of max 255 characters
        - **gender** is a CHAR variable of max 255 characters
        - **owned** is a TINYINT variable of 1 size character (0 is not owned, 1 is owned)
        - **current_timestamp** is a TIMESTAMP variable (not used)
        - **pet_timer** is a TIMESTAMP variable (for the interaction.php, PET BUTTON)
        - **feed_timer** is a TIMESTAMP variable (for the interaction.php, FEED BUTTON)
        - **play_timer** is a TIMESTAMP variable (for the interaction.php, PLAY BUTTON)
        - **groom_timer** is a TIMESTAMP variable (for the interaction.php, GROOM BUTTON)
        - **interaction_timer** is a TIMESTAMP variable (not used)
        - **img_URL** is a CHAR variable of max 255 characters
        - **view_date** is a DATETIME variable (not used)
        - **cost** is an INT variable (gathered from interaction.php and used for the marketplace.php)
    - SQL statements were last updated and edited on November 22nd 2020
- **Testsqlconnection.php**
    - Used for initial testing database connection to a created database server.
    - Verifies if we are able to create a connection to the created server.
        - If we can't then kill the connection
    - Connecting successfully allows us to interact with the database tables
- **updatedERD.PNG**
    - Contains the Entity Relationship Diagram png, which shows us how the tables are connected to each other
        - **user_table** connects to **cat_table** via **foreign key user_id.** There can be **multiple cats** to an **individual user**.

- **user_table** connects to the **marketplace** via a **one connection** link (NOT USED IN FINAL).
- **marketplace** connects to cat_table via a **foreign key cat_id** (NOT USED IN FINAL).