**Team Arsenal**

**Team Members:**

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| **Name** | **Email** | **CWID** |
| Naveen Yalla | naveenyalla@csu.fullerton.edu | 886109701 |
| Sai Kiran Madala | saikiran.m@csu.fullerton.edu | 885966440 |
| Susmitha Padda | susmitha.padda@csu.fullerton.edu | 885965897 |
| Anurag Kaki | anurag.k@csu.fullerton.edu | 885966499 |

**GitHub repository link: https://github.com/naveen4yalla/zombie.git**

**Additional functionalities implemented to the starter code:**

* Modified the website.
* User can create multiple zombies.
* Displaying zombie details along with the zombie image.
* User can level up any zombie of their choice in case of multiple zombies.
* Zombies can feed on humans and multiply.
* User can attack on any zombie owned by other user with any one of their zombies.
* User can transfer their zombie to other addresses.
* User can change the name and DNA of their zombie.
* Deployed NFT contract in polygon testnet and minted pictures in opensea testnet.

**Instructions on how to run the DApp:**

1. Open Ganache and setup new workspace by importing the config file
2. Compile the DApp package using command “truffle compile” and then migrate using command “truffle migrate”
3. Copy ZombieOwnership contract address and replace it with the address in index.js file.
4. Copy the abi contents of zombieOwnership.json file and replace it with the abi in component\_abi.js file and save
5. Launch the website
6. Copy an accounts private key from Ganache and import it in Metamask

**Instructions on how to interact with the DApp:**

**To create Zombie:**

1. Go to play section on the website
2. Click on create zombie button
3. Provide a name for your zombie
4. Approve the transaction on metamask
5. On successful transaction

**To Level up the Zombie:**

1. Go to play section on the website
2. Click on level up button
3. Provide the Zombie Id for which you would like to level up
4. Approve the transaction on metamask

**To view the users Zombie’s:**

1. Go to play section on the website
2. Click on show zombie’s button
3. A list of all the zombies associated with the sender address along with their images will be displayed

**To feed on humans:**

1. Go to play section on the website
2. Click on feed on humans button
3. A list of all the available humans will be displayed
4. At the bottom of the list click on feed button and enter the zombie id, human id to feed and name for new zombie
5. New zombie will be created with the name provided and the DNA will be a combination of zombie plus human.

**To attack on zombies owned by other owners:**

1. Go to attack section on the website
2. Provide the owner zombie id and opponents zombie id
3. Win and lose will be calculated based on random probability generated
4. In case the battle is won, a new zombie will be created in the respective address
5. In case the battle is lost, the loose count will be updated.

**To transfer zombie to other owners:**

1. Go to transfer section of the website
2. Provide the zombie Id which you wish to transfer and the account address to which the zombie must be transferred
3. Click on transfer button
4. The zombie will be transferred to the recipient address

**To change name and DNA of zombie:**

1. Go to play section of the website
2. Click on show zombies
3. If the zombie is at level 4 and above, you can change the name by clicking on the edit button and providing the new name.
4. If the zombie is at level 20 and above, you can change the DNA by clicking in the edit button and giving the new DNA value.

**To run the NFT smart contract:**

1. Import NFT folder as a separate Project.
2. Configure matic testnet in metamask.
3. In MintingNFT.js file replace the public address with the metamask account configured for matic testnet.
4. Navigate to the NFT smart contract folder in command prompt and run the following commands.
   1. Sudo truffle compile
   2. Sudo truffle migrate —network matic
5. In the browser navigate to opensea testnet website and link your metamask wallet to view the minted NFT’s.