**Mobile Legends Recommendation Group Project (30/10/2020)**

You are a **Sunton** developer and you have been tasked to give **recommendations** to the player on which hero they should play along with the details of the hero. Feel free to use online resources.

*Who has time to watch the guides? Let’s create a model that does it for us! - J, D.Y. Wan 2k20*

**Lvl 1: Hero Recommendation**

You have to create a function which takes in rank and hero type and returns the recommended hero according to their rank and difficulty to use the hero, assuming that the user has all the heroes in the game.

<https://www.quora.com/Which-mobile-legend-heroes-are-easy-to-use>

Recommended\_hero dictionary contains ‘hero\_type’ as the key and an array of heroes belonging to that hero type.

Valid Ranks: Warrior, Master, Grandmaster, Legend, Mythic, Mythical Glory

**Sample Input:** {‘rank’: ‘master’, ‘hero\_type’: ‘assassin’}

**Sample Output:** ‘Hero recommended: natalia’

**Data:** Recommended\_hero = { ‘assassin’: {‘warrior’: ‘saber’, ‘master’: ‘lancelot’, ‘grandmaster’: ‘helcurt’, ‘legend’: ‘gusion’, ‘mythic’: ‘ling’, ‘mythical glory’: ‘fanny’ }, ‘fighter’: {‘warrior’: ‘zilong’, ‘master’: ‘alpha’, ‘grandmaster’: ‘silvanna’, ‘legend’: ‘x.borg’, ‘mythic’: ‘jawhead’, ‘mythical glory’: ‘khaleed’} , ‘mage’: {‘warrior’: ‘eudora’, ‘master’: ‘chang’e’, ‘grandmaster’: ‘odette’ , ‘legend’: ‘pharsa’, ‘mythic’: ‘aurora’, ‘mythical glory’: ‘kaguara’} , ‘tank’: {‘warrior’: ‘tigreal’, ‘master’: ‘baxia’, ‘grandmaster’: ‘grock’, ‘legend’: ‘hylos’, ‘mythic’: ‘johnson’, ‘mythical glory’: ‘khufra’}, ‘marksman’: {‘warrior’: ‘layla’, ‘master’: ;clint’, ‘grandmaster’: ‘bruno’, ‘legend’: ‘miya’, ‘mythic’: ‘karrie’, ‘mythical glory’: ‘yi sun shin’}, support: {‘warrior’: ‘rafaela’, ‘master’: ‘diggie’, ‘grandmaster’: ‘estes’, ‘legend’: ‘angela’, ‘mythic’: ‘nana’, ‘mythical glory’: ‘faramis’} }

**Lvl 2: Skill Build Recommendation**

You have to create a function which takes in a hero and returns the recommended skill build ( an array of the order of skill to add )

You will have to **randomize** the skill number to add in an array size of 15.

Restrictions:   
Each skill number can only appear 5 times   
Skill 3 can only appear from the 4th placement onwards.  
Skill 3 cannot appear in consecutive if it is not the last 5 values.

**Sample Input:** {‘hero’: ‘natalia’}

**Sample Output:**  [1,2,2,3,2,1,1,2,1,3,2,3,3,1,3]

**Valid Output:**  [1,2,2,1,3,1,1,2,1,3,2,2,2,3,3]

**Invalid Output:**  [3,1,2,1,2,1,2,1,2,1,2,3,3,3,3]

**Invalid Output:**  [1,2,2,3,3,1,1,2,1,3,2,2,2,1,3]

**Lvl 3: Item Build Recommendation**

You have to update Lvl 2’s function to take in a hero and return the hero’s recommended item build as well.

Create a list of 20 items present in Mobile Legends’ shop.   
Randomize 5 items into an array and return this array, alongside the output returned in Lv2, with labels.

**Sample Input:** {‘hero’: ‘natalia’}

**Sample Output:**

“Hero build: [...]”  
“Item build: [‘Magic Boots’, ‘Scarlet Phantom, …]”

**Lvl 4: Emblem Build Recommendation**

You have to update Lvl 3’s function to take in a hero and return the hero’s recommended emblem as well.

You will have to **randomly select** an emblem for the hero and return all the values in a dictionary.

**Sample Input:** {‘hero’: ‘natalia’}

**Sample Output:**  {‘Emblem’: ‘Mage’, ‘Build’: [‘Increase MA’, …]}

**Data:** emblems = [‘Mage’, ‘Assassin’, ‘Fighter’, ‘Marksman’, ‘Tank’, ‘Support’, ‘Jungle’, ‘Magic’, ‘Physical’]

**References**

<https://www.oneesports.gg/mobile-legends/the-beginners-guide-to-getting-good-at-mobile-legends-bang-bang/>

<https://m.mobilelegends.com/en/guide>

**When 32K Prediction Model**

**Lvl 0:** Find the estimated number of matches to earn 32k BP to buy a Hero (*Hint: Use estimate number of BPs per match, average time spent and use* ***random*** *from a* ***range*** *and* ***loop****)*