Kingdoms of Vallorath

Kingdoms of Vallorath is a 4-5 player live-action roleplaying game modeled after RPG classics such as *Dungeons and Dragons* and *Cones of Dunshire*. 3-4 players take on the roles of archetypal medieval heroes, with one player assuming the identity of the "Game Master" (or GM) who runs the campaign with the help of the Vallorath program. (The GM *can* also play a character, but this is not recommended.) KoV is intended to be a more free-form, improvisational take on the *Dungeons and Dragons* formula. Instead of requiring a dungeon master to spend hours reading through rulebooks, selecting enemies, and designing maps, KoV generates a basic outline of the campaign's goal and encourages all the players to discover the plot together.

The program generates a class, race, personality, goal, stats, starting items, and backstory for each player character. For instance, two players could be assigned to respectively roleplay a hot-blooded, selfish human warrior who hails from nobility, and a serious, lonely elven rogue who is fleeing from the law for a crime they didn't commit. The program determines what elements are incompatible with each other, so you are never told to roleplay a character which is both patient and impulsive, for example.

The program randomly assigns three values between 1 and 10 to each character to represent their **attack** strength, their **knowledge** in their respective specialty, and their **luck**.

Attack is a value intended to simplify the classic D&D formula where different classes use different stats to calculate their damage. Instead of warriors using strength while mages use wisdom, all classes have one simple stat that determines their combat effectiveness. Different classes use their attack stat in different ways, however, so the classes retain their uniqueness while losing unnecessary complexity.

Knowledge is a representation of a character's skill in their field. Each class uses intelligence in a different way. With higher knowledge, warriors become more skillful with their weapon of choice, rangers have increased environmental awareness, bards can get away with crazier stunts, rogues become better at sneaking, and mages learn more spells. This stat is largely under the control of the GM, who will be the ultimate authority on whether or not a character is knowledgeable enough to perform a certain action.

Luck is a stat that can affect almost everything. Critical hits during combat, random enemy encounters, and general "acts of God". For example, a character with high luck could reduce the difficulty of a group of enemies with no penalty to the experience gained. This stat is also under the control of the GM.

Players are *strongly* encouraged to "make their case" to the GM as to why their knowledge or luck is high enough to achieve a certain result. As one example, if a character could have killed an enemy with a critical hit, but missed the dice roll by 1 number, they should appeal to the GM that their luck stat justifies a crit anyway. The GM has the right to be as strict or lenient as they wish, though a happy medium is usually the best course of action.

Each class starts with certain items that provide buffs to their stats, so warriors can be fairly sure their sword will deal a good amount of damage, while a mage’s tomes provide them with increased knowledge.

Combat is handled in turns, where each combatant has one turn to attack whomever they wish, or perform another action. When attacking, each player first rolls a die. Damage is determined by the active characters **attack** minus the target’s **armor**, plus the **random number**, which can be determined either by physical dice or by the program. Different classes use different dice, but if you are not using physical dice, this all easily managed by the program. Only a single, simple function call (e.g. “roll_mage”) is necessary to get the following dice rolls:

Player characters:

Warrior:	Rolls d20 + attack.	If 20, deals 25 damage + attack.
Ranger:	Rolls 2d6 + attack.	If same value, deals 20 damage + attack.
Thief:	Rolls 2d6 + attack.	If two sixes, 35 damage + attack.
Mage:	Rolls 2d6 + attack.	If same value, deals 0.5 damage to other enemies.
Bard:	Rolls 2d4 + attack.	No bonus.

Enemies:

Roll a d6 for each tier of difficulty:

Easy:	1d6	Can not crit.	
Medium:	2d6	If same value, +5	
Hard:	3d6	If same twice in a row, +10	}
Legendary:	4d6	If same twice in a row, +15	}-- (Crits do not stack)
Boss:	5d6	If same twice in a row, +20	}

When any character rolls a critical miss (either a 1 on the d20 or snake eyes otherwise), the GM determines a penalty. This penalty usually results in failing at the intended action so acutely that the character hurts themselves or makes the situation worse. Enemies cannot critical miss.

Upon clearing a encounter, you gain 2 stat point to distribute for the tier of difficulty (for example, players get 6 stat points after defeating a “Hard” enemy), as well as two items that can potentially increase your stats (for example, a “sword of +1 attack”, which always conveniently does exactly 1 more hit point of damage than your current sword)

Every character begins with 40 HP, or “vitality”, but can use one of their stat points to increase it by 3. This allows for “healing” after a fight, as well as increasing the health cap.

Both in and out of combat, the game runs in turns. The first player is decided by a d20 roll, and then the others take turns clockwise. During combat, enemies take their turn after PCs.

When not in combat, players should use the full extent of their improvisational to expand on the world and their character. If a mage wants to spend a turn to learn a new spell, and the GM decides his knowledge is high enough, he can do so. If the thief wants to seduce the bartender instead of fight him, he’s free to try. Players should feel free to try anything and everything - the bard class is explicitly designed to function poorly in combat, but excel outside of it, when the improv comes into play!

Ultimately, Kingdoms of Vallorath is a framework. The main goal is to bring together a group of friends and help them have a fun time. If the group decides that doing things a certain way is more fun than the “official” rules, they are not only *able*, but *encouraged* to make that change.

Game Master Guide

The Game Master is the most important member of the Kingdoms of Vallorath team. When you assume this role, you gain the power to shape the entire campaign for the player characters. This means you are free to be as kind or cruel as you like, since you are the one controlling when and who enemies attack, deciding whether the PCs' attempts at intelligence or luck checks are successful, and shaping the story as you desire. One question you should answer early on is whether you are playing *with* the others, or *against* them…

If you want to be a GM, you need to be comfortable with two core concepts: managing the KoV program, and improvising the story around the PCs. This section aims to make these two categories less intimidating. We will try to discuss both together (Though you can also view the README for a more barebones approach, or simply to review).

The flow of the game should be roughly a 2:1 balance of adventuring to combat. First, compile **Solver.pl** then **vallorath.pl**, and then run setup with either three or four inputs for the player names:

- *setup(alice, bob, charlie).*

Tell each player what the program generated for them. The program should output readable sentences for each line except the backstory, which are longer, optional histories for each character that can be referenced in **backstories.docx**. Players are in charge of keeping track of their vitality (which begins at 40), their stats, and their inventory.

The program will automatically generate a quest, but KoV is built around improv! If you have a better idea, take charge and begin that plotline instead. Whatever you decide, each player should have at least 1 turn before combat begins. After generating their characters and deciding on their overarching goal, tell them where they begin and what they're trying to do. If they need to seek information on which way to go, maybe direct them to a seedy tavern and generate an enemy encounter. If they begin in a haunted castle, let them explore and find a sword of +1 attack lying around...when they decide to pick it up, enemies ambush them. You should try to structure the campaign so that each tier of enemy is fought at least twice. Enemies can be generated with the function:

- *setup_encounter(difficulty).*
  - Accepted difficulties are easy, medium, hard, legendary, and boss
  - This will output what kind of enemy you encounter and how they behave, as well as the loot they will drop
  - Note: YOU are in charge of keeping track of enemy AI and health. It's up to you whether you make these transparent to the players, however.

When in combat, PCs generally attack first (but maybe they're ambushed!), and their damage is decided by their attack plus their roll. No enemy has armor. Each class has their own RNG, and can be called like so:

- *roll_class.*
    - Accepted classes are warrior, ranger, thief, mage, and bard
    - This will also output crit instructions. You can choose whether or not to tell PCs how their class crits

After each PC has a turn, the enemies begin attacking. If the enemies are supposed to attack warriors, and you have two warriors on your team, try to split their focus between them roughly evenly. If they're supposed to attack the PC with the lowest health, ask to see the players' notes. If they're supposed to attack whoever's closest, have them attack the player whose turn it was when combat began. Again, these are simply suggestions. Make the enemies do whatever you want! Enemy damage is calculated by their roll minus their target's armor. The enemies' rolls are called like this:

- *roll_difficulty*
    - Accepted difficulties are easy, medium, hard, legendary, and boss

Once the enemies are dead, tell the players what loot was dropped and have them apportion it as they see fit. Each class has one specific item that only they can use: warriors use swords, rangers use bows, thieves use daggers, mages use staves, and bards use lutes. Most items act like stat boosts, so finding a "sword of +1 attack" means your attack goes up by 1 - no matter many other identical swords you've found. The idea is that as the adventurers progress, they find better and better equipment, but don't need to manage their inventories too heavily. You should try to have about 10 encounters throughout the game, so each player should get at least one stat boosting item. If you think they deserve more loot after a difficult fight, or if a PC with high luck deals the final blow, you can call this function to generate one more:

- *drop_loot.*
    - Feel free to make up loot instead of using this function

Outside of combat, generally try to give the players at least two turns each or 5-10 minutes before throwing another encounter at them (unless someone wants to pick a fight). Allow them to explore some ruins or ask around town about the nearby dark forest. Maybe they have to solve a riddle that you Google. This is where you need to exercise your improv muscles! Feel free to rip off other high fantasy stories. Remind the players that they should appeal their options to you often. If they come up with a good idea, roll with it and pretend it was your plan all along. If and when they make these appeals, you can choose to roll the virtual dice with these commands:

- *rolld4.*
- *rolld6.*
- *rolld20.*

Try to set the players up for another fight in the near future - the more obvious you make it that battle is looming, the more exciting it will be when it finally happens. Again, try to let each tier of enemy between easy and legendary be fought at least twice, to make sure the PCs level appropriately and gain some solid gear.

After alternate between combat and adventuring several times, let the players reach their final goal. Come up with an excuse for them to fight the final boss, and type:

- *roll_boss*

Up to this point, if a player's vitality is reduced to 0, it's probably best to say they were incapacitated and recovered with 40 HP in exchange for one out-of-combat turn. During the boss battle, however, full-fledged death is on the table. Do the players get a happy ending, or a tragic one? If the boss manages to kill all the player characters...something probably went wrong with the stats somewhere. The nice thing to do would be to hide this boss' HP and allow the final surviving character to land the killing blow no matter what...but maybe you're not nice. We don't know, but we don't judge.

Hopefully the players have learned by this point that they can appeal just about anything, so maybe their luck allows them to miraculously survive an otherwise deadly blow. In any case, once the beast is dead (or triumphant), wrap up the story neatly for the other players, and congratulate them on a game well played.