

Zadanie 1 – Dota Analysis

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Dota 2 – Analysis

Maps and buildings:

Dota 2 is a **tower defense game** which consists of a rectangular map with 3 lanes and jungle (the area between lanes), the map is divided diagonally into 2 sides, one is called the **Dire** which has its base in the upper right corner and the other side called the **Radiant** has its base in the bottom left corner. Each lane consists of 3 dire and 3 radiant towers. Meanwhile the bases contain an object called the **ancient**, and 2 defending towers. In their base there are also buildings called effigies, which do not have any importance, except distracting the enemy creeps when they are attacking the base.

Players

The game consist of 5 players on each side. Before the game starts each player chooses a hero from a pool of 121 heroes. Player can use the mouse to attack and move and the keyboard for using items and abilities. Players also have an account which keeps track of their achievements, records, matchmaking points, skins for their heroes and other cosmetics.

Game Modes

The player can join from the Dota2 client to different types of game modes:

- **All pick** -people can pick whatever hero from the whole hero pool.
- **Turbo mode** - faster paced than all pick.
- **Ranked all pick** - In ranged game mode, people can ban heroes.
- **Single draft** – player chooses from random 3 heroes.
- **Random draft** - Players take turns choosing from a pool of 33 random heroes.
- **All random** - Each player gets a random hero.
- **Least played** - Choose from a pool of your least played heroes.
- **Limited heroes**- Play with heroes suitable for new players.
- **Ability draft** - Play a hero with four abilities selected from a random pool of abilities.
- **All random deathmatch** - Players receive a random hero when they respawn after dying. First team to exhaust either teams 40 respawns, reach 45 kills on either team, or when the Ancient is destroyed, wins.
- **Private games** – players can create their own games and invite other players.
- **Captain's mode** - Each team's captain bans and chooses heroes for the team
- **Captain's draft** - Captains ban and choose from a selection of 27 heroes.

In-Game(All pick)

The game starts by the players picking a hero for themselves, there is 75 seconds for that.

Additionally every player has the option press the random button to randomly get a hero, which in turn gives 2 free items to the hero.

Then the players buy items and go to lanes to gain experience by killing creeps and enemy heroes, meanwhile slowly pushing the lane with the creeps and destroying towers.

The goal of the game is to kill the opposing team's ancient, thus winning the game.

Heroes

There are **121** heroes in the game, each with a unique set of abilities.

Heroes can have a ranged or melee basic attack, or both. Ranged means he attacks from a distance and melee means it attacks at close range. Heroes can fight other heroes from the enemy team, when one dies the other gains gold and experience, while the hero that died will respawn in the base after a time limit, which increases as the game goes on.

Attributes

Attributes are stats that give bonuses to heroes.

There are **3 main attributes**:

- strength – increases maximum health and health regeneration
- intelligence – increases maximum mana and mana regeneration
- agility – increases armor and attack speed

Each hero has a main attribute role, which means that their corresponding amount of main attribute also increases their damage by the same amount. E.g.: If a hero has the strength main attribute role, then they have 30 strength, other than gaining maximum health and health regen, they also gain 30 attack damage bonus.

Attribute Bonus – Attribute Bonus is a passive ability, it can be increased by leveling up.

The main source of attributes are items.

Other stats that heroes have are :

- vision range
- attack speed
- damage
- attack range
- move speed
- spell amp
- mana regen
- health regen
- armor
- physical resist

- **magical resist**
- **status resist**
- **evasion**

These ones can be increased or decreased by items, passive abilities, active abilities.

Abilities

Most heroes have 4 abilities. There are 3 types of abilities, **active**, **passive** and **autocast**.

Active abilities cost **mana**. Autocast abilities are special active abilities that can be toggled on or off, or manually cast. Meanwhile passive abilities are unclickable.

There is a special ability called **ultimate ability** which can be only learned every 6 levels.

Meanwhile basic abilities can be leveled up every 2 levels.

This means that a level 2 hero cannot upgrade a learned basic ability to level 2.

Sub-abilities - many abilities come together with sub-abilities. These extra abilities usually do nothing on their own and mostly are only active after the spell they come with was cast first, or in some cases, they serve as a set-up for other spells.

Leveling up abilities and also some items can affect their damage, cost, effects.

Abilities also have cast animation, cast range, projectile speed.

They can be **single target** or **AoE**, and can be a **skillshots**, or **point-and-click**.

Experience and Level

XP is an element heroes can gather by killing enemy units, or being present as enemy units get killed.

When enough xp is accumulated through killing units, a hero can upgrade its level by one.

The maximum level for a hero is **30**. The higher the level, the more xp needs to be gained to level up.

Gold

Gold is the currency used to buy items or instantly revive your hero. Gold can be earned from killing heroes, creeps, or buildings. There is also something called the **periodic gold**, this is gained by each player **every 0.6 second** from the start of the game until the end.

There are some items that can grant gold to the player through different interactions.

Killing creeps and heroes gives experience and gold. Each player starts with a fixed amount of gold.

Items

Items are in-game equipment that provide heroes with bonus attributes and special abilities. Most items can be purchased from several shops on the game map, while others are dropped by creeps. Lower tier items are combined into higher tier items, usually with the help of a **recipe**. Heroes have six item slots in their inventory, three in their backpack, and six more in their stash.

Some items have an on-use effect such as potions, or boots can be upgraded to increase movement speed for a short time.

Items can be bought in the **base shop**, next to the fountain or from **secret shop**, which can be found in the jungle in both the left and the right parts of the map. Also, equipment belongs to different tiers, currently there are 5 tiers.

Couriers

A Courier is a unit that transports items from the shops to the heroes. Every player gets a courier at the beginning of the match. The courier starts out walking, but gains the ability to fly at higher levels.

Interactable objects

There are 8 interactable objects in game **Buildings, creeps, neutral creeps, heroes, runes, summoned units, trees, shops**

- **Buildings** - which attack players and creeps, and vice versa.
Each lane contains 3 attacking towers, which attacks the closest opposing unit in range and continue attacking until unit dies or leaves its range tower gives nearby players armor and hp regen. In the base there is the ancient building and there are barracks that spawn creeps, and at last there are effigies. A special building is the fountain, which is at the corner of the map for each team respectively. These fountains restore mana and health for the players, meanwhile deal damage to enemy creeps and heroes.
- **Creeps** – which attack heroes, enemy creeps and enemy buildings. Creeps grant a set amount of gold and experience for the hero that kills them, if they are the opposing team's creeps. They spawn every 30 seconds at both bases at the same time. Players can kill their allied creeps to deny gold from the enemy heroes. There are 3 types of creeps, melee, ranged and siege. When opposing team's barracks are destroyed their own lane creeps get upgraded.
- **Neutral creeps** – can be found on different parts of the map, except on the lane.
They give gold and experience when killed. They can be attacked by heroes.
There is a special neutral keep Roshan, which if killed by players, it gives them an item that can resurrect the player when he dies.
- **Heroes**- they can interact with themselves, other heroes, enemy creeps, enemy buildings, npcs, neutral creeps, runes, allied creeps, some allied buildings. Allied heroes share XP if they close to each other. Summoned units from heroes can also grant XP to the enemy heroes.
- **Shops** – shops are npcs in the game that provide equipment for heroes in exchange of gold. These units cannot be attacked. There are found in the base next to the healing fountain or on the map, as a secret shop.
- **Summoned units** – these are units summoned by heroes, some of them can be controlled by the player, some cannot be. These can interact with allied or enemy heroes and creeps, depends on the summoned unit and its properties. These units also give XP to opposing team's heroes if killed.
- **Trees** – Trees are objects on the map that can't be destroyed or restored with various items or hero abilities.
- **Runes**- spawn on the map and they give some kind of bonuses to the heroes that interact with them.
There are 8 types of runes: bounty, water, arcane, double damage, haste, illusion, invisibility, regeneration.