

GAME OF THRONES™

WHEN YOU PLAY THE GAME OF THRONES YOU WILL, OR YOU DIE.
THERE IS NO MIDDLE GROUND

CREATE YOUR OWN HOUSE INSPIRED BY THE TV SERIES AND THE PROGRAM CAN CALCULATE THE SCORE OF YOUR TEAM AND YOUR CHANCE TO WIN THE GAME OF THRONES AND SEE YOUR RULER ON THE IRON THRONE.

CODE REVIEW:

❖ ARCHITECTURE:

- ONE MAIN ABSTRACT CLASS **CHARACTER**.
- FOUR DERIVATIVE CLASSES WHICH INHERIT THE MAIN CLASS:

- **RULER**
- **ADVISOR**
- **KNIGHT**
- **SERVANT**

- IMPLEMENTED **HETEROGENEOUS CONTAINER**.

❖ CLASSES AND PROPERTIES

- EACH **CHARACTER** HAS:

- **NAME**
- **AGE**
- **GENDER**

- **CANONICAL REPRESENTATION**

- **APPROPRIATE CONSTRUCTORS**

- **MUTATORS SET/GET**

- **CLEAR VIRTUAL FUNCTION GETSCORE()**

- **IT CALCULATES SCORE FOR THE DIFFERENT KIND OF CHARACTERS.**

- **METHOD SHOW()**

- **DISPLAYS ONLY ESSENTIAL INFORMATION**

- **CLEAR VIRTUAL FUNCTION PRINT()**

- **IT DISPLAYS ALL PROPERTIES FOR EACH CHARACTER.**

- **METHOD GETSCORE()**

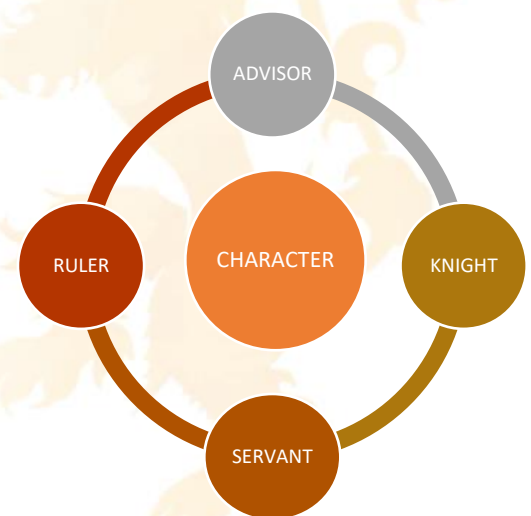
- **CALCULATES SCORE OF EVERY CHARACTER, DEPENDION ON CURRENT FEATURES AND QUALITIES.**

- **CLEAR VIRTUAL FUNCTION CLONE()**

- **CREATE COPY OF **CHARACTER****

- **OVERLOADING COMPARISON OPERATOR ==**

- **COMPARING PROPERTY **NAME** ONLY**



GAME OF THRONES™

- **EACH ADVISOR HAS:**
 - **IS MAESTER**
 - **IS HAND OF THE RULER**
 - **APPROPRIATE CONSTRUCTORS**
 - **MUTATORS SET/GET**
 - **OVERRIDE CLONE()**
 - **OVERRIDE PRINT()**
 - **OVERRIDE GETSCORE()**
- **EACH KNIGHT HAS:**
 - **NUMBER OF KILLINGS**
 - **TITLE**
 - **APPROPRIATE CONSTRUCTORS**
 - **MUTATORS SET/GET**
 - **OVERRIDE CLONE()**
 - **OVERRIDE PRINT()**
 - **OVERRIDE GETSCORE()**
- **EACH SERVANT HAS:**
 - **IS BETRAYER**
 - **APPROPRIATE CONSTRUCTORS**
 - **MUTATORS SET/GET**
 - **OVERRIDE CLONE()**
 - **OVERRIDE PRINT()**
 - **OVERRIDE GETSCORE()**
- **HETEROGENEOUS CONTAINER HAS:**
 - **HOUSE NAME**
 - **HOUSE LOCATION**
 - **HOUSE WORDS**
 - **ARRAY OF CHARACTER POINTERS (TEAM)**
 - **SIZE**
 - **CAPACITY**
 - **CANONICAL REPRESENTATION.**
 - **APPROPRIATE CONSTRUCTORS.**
 - **MUTATORS SET/GET**
 - **RESIZEUP()/RESIZEDOWN()**
 - **HASCHARACTER():**
 - **IF IT CONTAINS CURRENT CHARACTER**
 - **IS FULL():**
 - **IF CAPACITY IS EQUAL TO SIZE**
 - **ADD() AND REMOVE() METHODS.**
 - **SHRINKSHOW() METHOD:**
 - **DISPLAYS ONLY ESSENTIAL INFORMATION FOR THE TEAM**
 - **SHOWTEAM() METHOD**
 - **DISPLAYS THE WHOLE INFORMATION FOR THE TEAM**
 - **GETTOTALSCORE() METHOD:**
 - **CALCULATES THE SCORE OF YOUR TEAM AND THE CHANGE TO WIN THE GAME OF THRONES.**
 - **GETEXTREAM(COMPARATOR) METHOD:**
 - **USING COMPARATOR**
 - **ABLE TO DISPLAY YOUR ELDEST CHARACTER**
 - **ABLE TO DISPLAY YOUR BEST CHARACTER**
 - **SORT(COMPARATOR) METHOD:**
 - **ABLE TO SORT YOUR TEAM BY:**
 - **AGE**
 - **NAME**
 - **SCORE**