

INPUTS	OUTPUTS
<ul style="list-style-type: none"> TeamID, the number of team members in the team as well as the VillainID of a villain in the team 	<ul style="list-style-type: none"> All details of each villain, ID, Name, Loot, caught and category and villainry All details of each team, ID, Power value and teammembers

Variables

- Villain - VillainRec
- CUATeam() - cCUATeam
- FILE_NAME - String
- REC_SIZE - Integer
- NUM_REC - Integer
- PRIME_NUMBER - Integer
- BlankRec - VillainRec
- FS - FileStream
- BW - BinaryWriter
- BR - BinaryReader

UML

CCUATeam

- TeamID: Integer
- PowerValue: Integer
- Villains(): CVillain
- TeamMembers: Integer

<Constrcutor>

- + CCUATeam()

<Properties>

- + TeamID(): Integer
- + PowerValue(): Integer
- + Villain(Ind(): Integer): Integer
- + TeamMemebers():

<Methods>

- + DeterminePowerValue(): integer
- + Display(): String



CVillain

- IDNumber: Integer
- Nam: string
- Loot(2): integer
- Caught : integer
- Category : string

<Constrcutor>

- + CVillain()

<Properties>

- + IDNumber: integer
- + Name(): string
- + Loot(ind: integer): integer
- + Caught(): integer
- + Category(): string

<Methods>

- + CalculateVillainry(): integer
- + AssignCategory(): string
- + Display(): String

btnCaptVal

frmCUATeam



Capture Values

btnSaveToFile

Save To File

Read From File

btnReadFromFile

Display Information for team

btnDisplay

txtTeamInfo

grdCUA

Highest Powervalue CUATeam

btnHighestPowerCUATeam

txtHighestPowerCUATeam

Events	Actions
<ul style="list-style-type: none"> • <u>btnCaptVal</u> is clicked 	<ul style="list-style-type: none"> • Take in inputs from <u>user</u> • Resize array and grid <u>dimensions</u>
<ul style="list-style-type: none"> • <u>btnSaveToFile</u> is clicked 	<ul style="list-style-type: none"> • save information for record to <u>file</u>
<ul style="list-style-type: none"> • <u>btnReadFromFile</u> is clicked 	<ul style="list-style-type: none"> • read information for record from <u>file</u> • Display information in the grid
<ul style="list-style-type: none"> • <u>btnDisplay</u> is clicked 	<ul style="list-style-type: none"> • Display information for the team in the textbox
<ul style="list-style-type: none"> • <u>btnHighestPowerCUATeam</u> 	<ul style="list-style-type: none"> • Display highest power value team in text box

Algorithm

btnCaptVal

1. TeamID <- Prompt user for team ID
2. TeamMembers <- Prompt user for number of teammembers
3. VillainID <- Prompt user for villain ID

btnSaveToFile

1. Instantiate class objects

1. Villain.VillainID <- set value
1. Villain.Name <- set name
2. Villain.Loot(1) <- set value
3. Villain.Loot(2) <- set value
5. Villain.Caught <- set value

2. Save to the file

btnReadFromFile

1. open and read from file
2. store information to the object array
3. display information in the grid

btnDisplay

1. txtTeamInfo.Text <- Disolay fuction from team object

btnHighestPowerCUATeam

1. Assess which team has the highest powervalue
2. txtHighestPowerValue <- team with the highest powervalue

Test Data

TeamID	100	I
TeamMembers	5	
VillainID	1001	
VillainName	Villain1	
Caught	2	
Category	B	
Loot	100	10000
Villainry	5050	
TeamPowerValue	0	
Highest PowerValue	-	