

Game Engine

Game board

```
Player[] Players {get; set;}  
String GameKey {get;}  
Int Turn {get;}  
public bool Shoot (int positionY, int positionX, 'int playerID')  
Public bool IsGame End (out player Winner)  
Public Game board ( )
```

Player

```
String Name {get; set;}  
Boat [10] Boats {get;}  
Bool [10] Tries {get;}  
Public Player ()  
Public bool IsTryAlreadyDone (int positionY, int positionX)  
Public bool IsItAHit (int positionY, int positionX)  
Public bool Has Player Lost ()  
Public bool Set Boat Position (int positionY, int positionX,  
int boatID)
```

Boat

```
Int[] PositionX {get;} Int[] Hits {get;}  
Int[] PositionY {get;}  
Int Size {get;}  
BoatType Type {get;}  
Public Boat (BoatType type)  
public void Set Positions (Int[] positionY, Int[] positionX)  
Public Are You There (int positionY, int positionX)  
Public bool IsItAHit (int positionY, int positionX)
```

GameWeb Application

GameController

Public ActionResult Index()

Public ActionResult NewGame()

Public ActionResult Game()

GameWebModel

Public List<GameBoard> GameBoards {get;}

Public Boat[] Boats {get;}

Public bool[] Turns {get;}

Public bool Join()

Public void PositionBoats()

Public bool Shoot()

Views

Index.cshtml

NewGame.cshtml

Game.cshtml