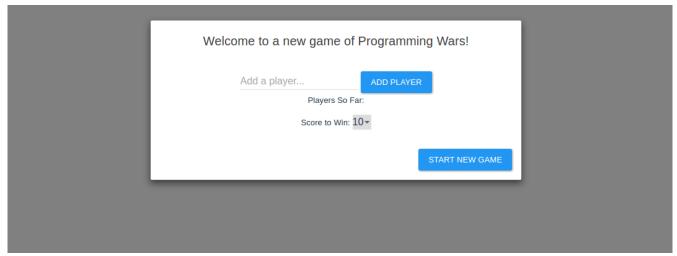
Programming Wars Web Version v0.1 User Manual

#### Introduction

Programming Wars is a fun and easy to learn card game that introduces basic programming concepts. As of v0.1, the game supports local hot-seat multi player only. To play a game, visit this website:

## http://programmingwars.cullen.io

### Starting a Game



*Illustration 1: Setting up and starting a new game* 

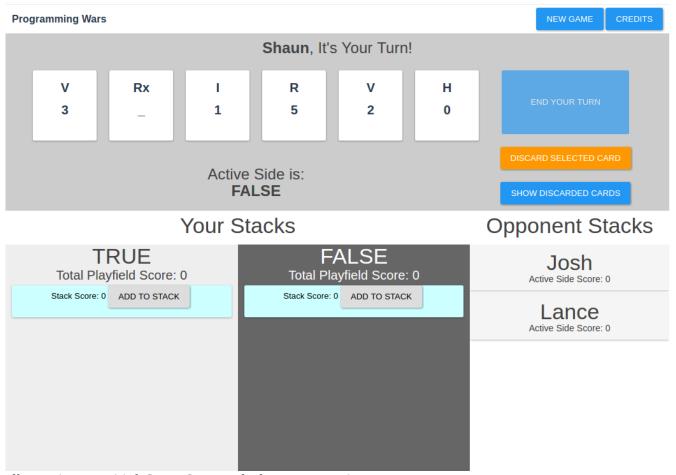
When you first visit the website, a modal window is presented. In this window you can add players to the game. Type the player name, press the ADD PLAYER button, and that player will be added to the game. You can add as many players as you like, but the recommended maximum is 4. After you have added at least 2 players, you can set the score limit for winning the game. A shorter game will have 10 points to win, for a longer game you can set the score limit above 20. Once you have chosen the options and added players, you can press START NEW GAME to start the game.

Trouble shooting note: If you have accidentally dismissed the modal window by clicking any part of the window outside the modal screen, you can refresh the page to show the modal window again. You will have to re-enter players and options after you refresh the page.

#### **Playing the Game**

The game consists of cards of different types. Each player has a hand of 5 cards. At the start of a players turn they draw a card, and the player must have 5 cards at the end of their turn. To score points players add Instruction cards to Stacks in their Playfield areas. To select a card from their hand, the player can click on a card in the Hand area, and it will glow green if the card is selected. Once a card is selected, a player can add that card to a stack by

pressing the ADD TO STACK button on either the True playfield or False playfield. A player can also drag and drop a card from the hand when playing on a recent version of Chrome. When the card is successfully added to a Stack, the card will be moved from the player's hand to the Stack. When a player has played a card, they then can pass their turn to the next player in the game by pressing the glowing END YOUR TURN button.



*Illustration 2: Initial Game State and Player Interactions* 

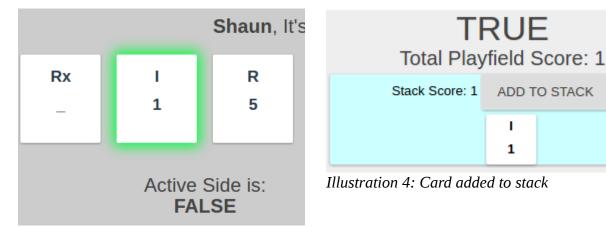


Illustration 3: Card selection

After a card is successfully added to a stack, the playfield score will be updated to indicate the points scored by the player. The game will end if a player has a score greater than or equal to

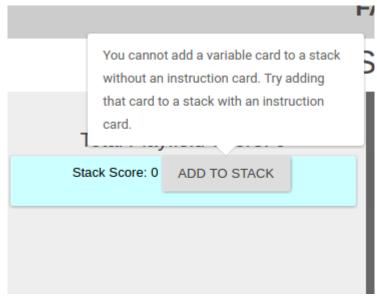
ADD TO STACK

ı 1 the score limit at the end of their turn. Points only count if they are on the current active side, indicated below the player's hand. The currently active side will randomly change at the end of a round, after all player's have taken their turns. You never know which side will be active, so it is good strategy to try and play cards on both playfields in case the active side changes unexpectedly.

If a player has no valid card to play, the player must discard a card. They can discard by selecting a card, and pressing the DISCARD SELECTED CARD button. After the player has 5 cards they may end their turn. Pay

attention to the pop ups when trying to play a card on a stack, as they contain relevant information on which types of cards can be played.

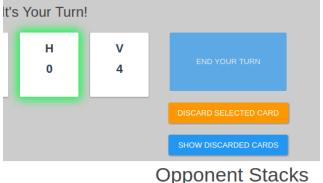
For example, a variable card can only be used if there is a repetition card at the top of a stack. If the player tries to make this play, the popover will indicate possible alternatives.



*Illustration* 5: *Pop up information example.* 

# **Hack Cards**

To prevent your opponents from winning the game, a player can utilize a Hack card to remove an opponents stack. This will remove the points along with the stack. To use a Hack card, the player must expand the opponent stack area for the player they wish to hack. To expand their opponents stacks, the player can click on the opponent's name. When the stacks are visible, the player can select a Hack card, and a HACK button will appear next to the opponent stacks that are hackable. If the player then presses the HACK button, this will remove that stack from the opponent.



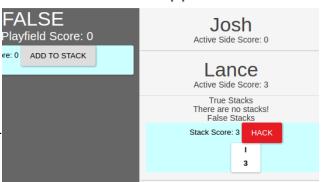
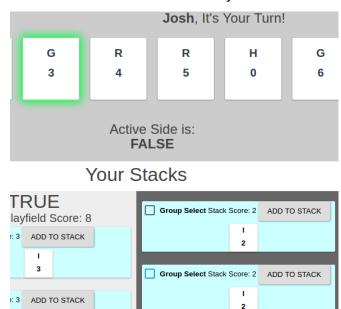


Illustration 6: How to use hack cards with the HACK button

Hack cards are powerful, so you can use Group cards to protect your stacks from being hacked!

### **Group Card**

Once you have played enough cards, your stack's points will start to grow. In order to prevent opponents from removing your high value stacks, you can use a Group card to protect you stacks and prevent them from being removed. To use a Group Card you can select it, and the group select check boxes will appear next to your stacks. The Group Card value must be equal to the total value of all the stacks selected. So if you have two stacks, with one worth 5



*Illustration 7: Group Select checkboxes appear next to stacks when the Group card is selected.* 

2 ADD TO STACK

✓ Group Select Stack Score: 1

ADD TO STACK

points and one worth 2 points, you must have a group card with a value of 7 to group these stacks. After you have selected stacks that have a total value equal to the value of the selected group card, a modal window will appear asking the player to confirm if they want to group these stacks. If the player cancels the modal, they can then select other stacks to group or do something else. Once the stacks are grouped, all selected stacks are replaced by a single stack with the Group card added to it. This stack with the Group card added to it cannot be hacked!



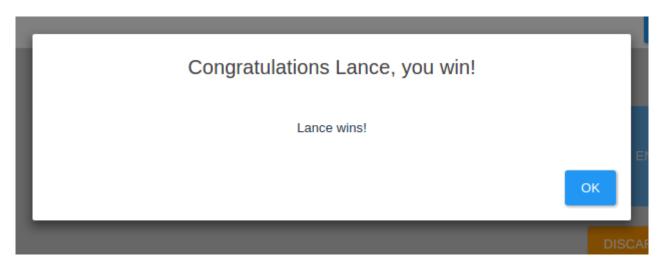
*Illustration 8: The group select confirm modal.* 



Illustration 9: After grouping, the stacks are replaced by a stack with a group card of equivalent value.

# **Winning the Game**

If a player ends their turn with an Active Side playfield having a total score greater than or equal to the score limit, that player wins the game! After the game is over that Winning modal is presented, after which the player can start a new game by hitting the OK button. This will take the player to the the game setup screen as shown at the start of this document.



#### Miscellaneous

The players' playfields and the opponent stack areas can expand vertically beyond the size of the screen. These areas are scrollable, so if you cannot see all your stacks, make sure to scroll with the mouse wheel on these different areas.

If all else fails you can refresh the main URL to restart the game, if there are bugs present. To report an issue, please use the button REPORT PROBLEM to request a feature or report a bug. Thank you!