1PROJ-User

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1 Introduction

Katarenga is a strategic board game for two players, inspired by chess and enriched with original variants. The game features several modes: Katarenga, Congress, and Isolation, each with its own rules and objectives.

Katarenga can be played solo against the computer, in local multiplayer, or online with other players.

The objective varies according to the mode selected:

1. **Katarenga:** Move your pieces to the opponent's camp.
2. **Congress:** Connect all your pieces to form a continuous chain.
3. **Isolation:** Be the last to place a piece on the board

The game is aimed at all board game enthusiasts, beginners or advanced. Katarenga runs on Windows (and other systems compatible with Python and Pygame) and features an intuitive graphical interface for fast learning.

2 Installation

2.1 Requirements

Python 3.x must be installed on your computer.
Pygame (Python graphics library) must be installed.
(Optional) Internet access for online mode.

2.2 Outbuilding installation

1. Open a terminal or command prompt and type: pip install pygame
2. Download or clone the Katarenga project folder on your computer. If you use Git: git clone "git repository link". Alternatively, download and extract the ZIP archive.
3. Go to the project folder with the command : cd "path to the Katarenga file"

3 Launching the Game

1. Open a terminal or command prompt in the Katarenga project folder.
2. Run the following command: python main.py
3. The game will start and the welcome screen will appear.
4. On the welcome screen, you can access the main menu.
5. Use your mouse to navigate through the different options (Solo, Local Multiplayer, Online Multiplayer, Create/Edit Regions, Options, etc.).

4 Navigation in the Menu

4.1 Main Menu

When you launch Katarenga, you arrive at the main menu. You can navigate using your mouse.
The main menu offers several options:
Solo: Play against the computer.
Local Multiplayer: Play with another player on the same computer.
Online Multiplayer: Host or join a game over the network.
Create/Edit Regions: Customize or edit game boards.
Options: Adjust settings such as volume or view the game rules.
Quit: Exit the game.

4.2 How to Navigate

Mouse Navigation: Click on the buttons to select a menu or option.
Back/Return: Use the "Back" button (arrow) to return to the previous menu.
Validation: Use the "Next" button to confirm your choices (for example, after entering usernames).

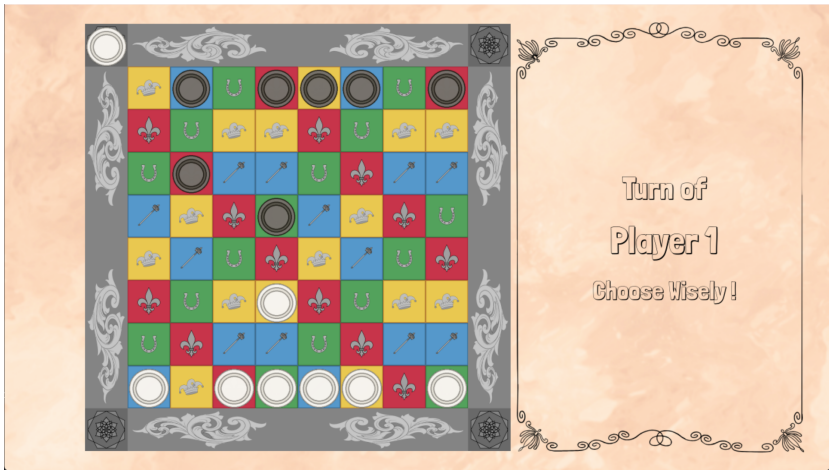
4.3 Tips

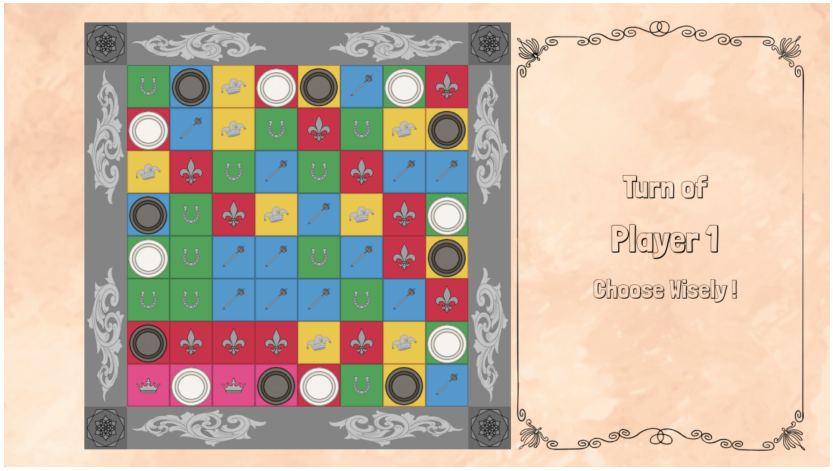
Hover over buttons to see visual feedback.
Some menus (like region creation or online play) have additional sub-menus and options.
You can always return to the main menu from sub-menus using the back arrow.

5 Game Modes and Rules

5.1 Katarenga

Objective: Move your pawns into the opponent's camp.
How to play:
Each player starts with 8 pawns.
Pawns move according to the pattern of the tile on which they are on (bishop, rook, queen, king, knight).
You can capture opponent pawns by moving onto their tile.
When a pawn reaches the opponent's camp, it is removed from the board and counts toward victory.
The first player to bring all their pawns into the opponent's camp or reduce the opponent to less than two pawns wins.



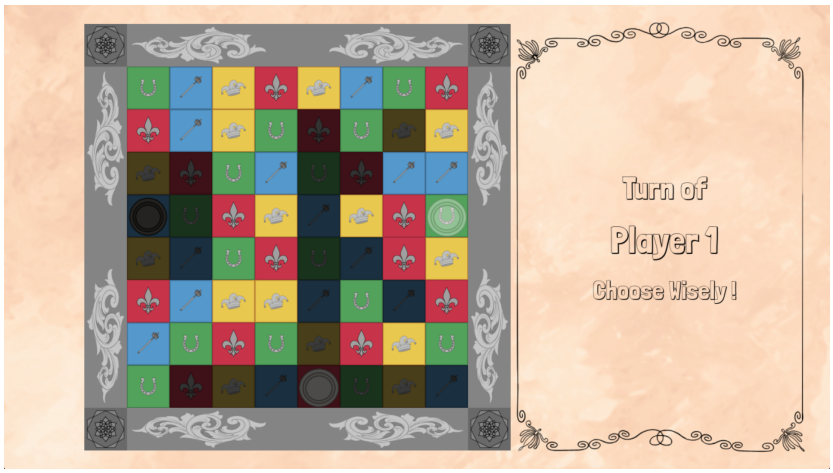


5.2 Congress

Objective: Connect all your pawns to form a continuous chain.
How to play:
Each player starts with 8 pawns placed in specific positions.
The nails move according to the pattern of movement of the tile.
No captures in this mode.
The first player to link all their pawns wins.

5.3 Isolation

Objective: Be the last player able to place a pawn on the board.
How to play:
The players take turns placing pawns on empty tiles.
Each placement removes that tile and all tiles that could be reached from it (according to the movement pattern).
The last player able to move wins.



5.4 How to Select a Mode

From the main menu, click on the desired game mode.
Follow the on-screen instructions to set up the game (choose usernames, board, etc.).

5.5 Movement patterns

You can access the rules for each mode from the main menu at any time.
The movement patterns are inspired by chess pieces:

- **Bishop:** The pawn moves like a bishop in chess diagonally, but must stop at the first bishop tile it encounters.
- **Rook:** The pawn moves like a rook in chess in straight lines, horizontally or vertically, but must stop at the first rook tile it encounters.
- **Queen:** The pawn moves like a queen in chess in any direction: diagonally, horizontally, or vertically.
- **King:** The pawn moves like a king in chess one square in any direction.
- **Knight:** The pawn moves like a knight in chess in "L" shapes: two squares in one direction, then one square perpendicular.

6 Username Entry

Before starting a game, you will be asked to enter the usernames of the players.

6.1 How to Enter Usernames

A screen will appear with one or more input boxes (depending on the mode of the game).
Click inside each box and type the desired username for each player.
You can use the keyboard to enter letters, numbers, or delete characters with the Backspace key.
Once all usernames are filled in, click the Next button to continue.
If you want to go back to the previous menu, click the Back arrow.

6.2 Tips

Usernames are used to identify players during the game.
You cannot start the game until all username fields are filled out.

7 Controls in Game

7.1 Basic Controls

Mouse Navigation: Use the mouse to interact with the game interface and the board.
Select a Pawn: Click on a pawn you want to move.
Move a Pawn: After selecting a pawn, click on the destination tile to move it.
Place a Pawn (Isolation mode): Click on an empty tile to place your pawn.
Buttons: Use the on-screen buttons to:

1. Return to the main menu
2. Restart the game
3. Validate your choices
4. Go back to the previous screen

7.2 Keyboard Shortcuts

Backspace: When entering usernames, use the backspace to delete characters.

7.3 Additional Tips

Hover Effects: Hovering over buttons or tiles may highlight them to indicate that they are selectable.
End turn: Your turn ends automatically after a valid move or placement.
Unavailable Actions: If a move or action is not allowed, nothing will happen when you click.

8 Online Multiplayer

Katarenga allows you to play with other players over the network. Here's how to use the online multiplayer features:

8.1 Hosting a Game

1. From the main menu, select Online Multiplayer.
2. Enter your usernaùe
3. Click on Host to create a new game server.
4. Enter the name of tour game and choose the game mode.
5. Wait for another player to connect. The game will start automatically once both players are connected.

8.2 Joining a Game

1. From the main menu, select Online Multiplayer.
2. Click on Join to connect to an existing game.
3. Enter your username
4. Wait for the connection to be established. The game will start automatically once both players are connected.

8.3 In-Game Communication

The game interface will update in real time as each player moves.
All controls and rules are the same as in local multiplayer.

8.4 Tips

Make sure both players are connected to the same network or that the host's port is open for external connections.
If you encounter connection issues, check your firewall and network settings.
You can return to the main menu at any time if you wish to leave the online game.

9 Creating and Editing Regions

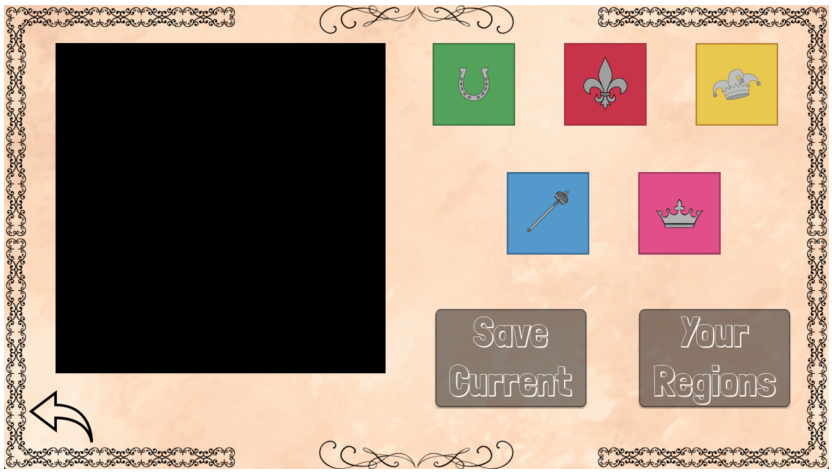
Katarenga allows you to create and customize your own board regions for a unique gameplay experience.

9.1 Accessing Region Creation

From the main menu, select Create/Edit Regions.

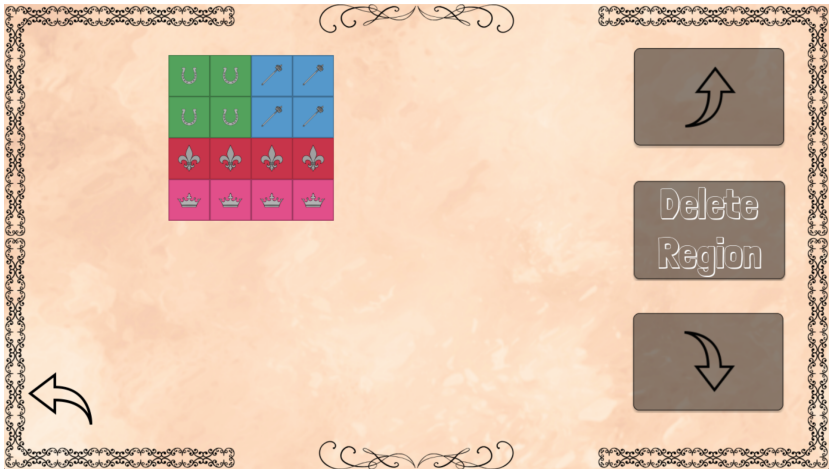
9.2 Creating a Region

1. A blank 4x4 region grid will appear.
2. Use the tile palette to select the type of tile you want to place (bishop, rook, queen, king, knight, etc.).
3. Click on a cell on the grid to place the selected tile.
4. Use the available buttons to:
   - Rotate the region (90° clockwise) (r)
   - Flip the region (t)
   - Save the region to add it to your collection
   - See your region



9.3 Editing or Deleting a Region

To edit or delete an existing region, select it from the list of saved regions. Use the Edit button to modify the region or the Delete button to remove it. You can navigate between pages if you have many saved regions.



9.4 Tips

Custom regions can be used in your games for more variety.
Make sure to save your changes before leaving the editor.

10 Options and Settings

You can adjust various settings in Katarenga to personalize your experience.

10.1 Accessing Options

From the main menu, select Options.

10.2 Available Settings

Volume: Use the slider to adjust the game's sound volume.
Display: (If available) Change display mode or resolution.
Rules: View the rules for each game mode at any time.
Return to Menu: Use the back button to return to the main menu.

10.3 Tips

Your settings are applied immediately.
If you encounter any issues, you can reset the options to default values.