Assignment 6 Testcase Document

1 Unit test

Id	Class	Function to test
1	ActionCard	Match
		toString
2	Reverse	constructor
		Play
3	WildCard	Match
		Play
		toString
4	Deck	Print
5	Player	printHand
		handPoints
		playCard
		mostFrequentColor
6	Bot	pickCard
7	Man	pickCard

2 Case test

2.1 Checklist

Card		Condition
Number Card		Match
Action Card (Match by color or action symbol)		Match
	Reverse	2 player
		>2 player
	Skip	Skip
	Draw2	Draw 2cards + skip
Wild (Action) Card (Match by color or action symbol)	WildCard	Match (Man) Receive input; show error message; Change color;
	WildDraw4	Change color + Draw4 + skip

Game flow	
Bot	Select card
	Draw card
	Select Color(mostFrequentColor)
Man	Receive input

	Prompt error message
Gameflow	Skip
	Draw

Game Over	
condition	Current player has no cards
	All players consecutively passed their turns
	Reach the maximum turns
Decide winner	Calculate points

Output format	
Print cards in player's hand	front
	back
Game beginning	Deck print
Game end	Game End indicator
	Each player with its card

2.2   Test case

2.2.1   Unit Test ActionCard

```cpp
#include "ActionCard.h"
#include "Bot.h"
#include "DiscardPile.h"
#include "DrawPile.h"
#include "Man.h"
#include <cctype>
#include <climits>
#include <iomanip>
#include <iostream>
#include <string>

using namespace std;

int main() {
  int seed = 114;
  srand(seed);
  auto test_card = ActionCard(Color::Yellow, Action::Skip);

  auto rs = ActionCard(Color::Red, Action::Skip);
  auto yr = ActionCard(Color::Yellow, Action::Reverse);

  cout << "Match: " << boolalpha << test_card.match(&rs) << endl;
  cout << "Match: " << boolalpha << test_card.match(&yr) << endl;
```

```
  cout << "toString: " << test_card.toString() << endl;
  cout << "toString: " << rs.toString() << endl;
  cout << "toString: " << yr.toString() << endl;
}
```

2.2.2   Unit Test Bot

```
#include "ActionCard.h"
#include "Bot.h"
#include "DiscardPile.h"
#include "DrawPile.h"
#include "Man.h"
#include <cctype>
#include <climits>
#include <iomanip>
#include <iostream>
#include <string>

using namespace std;

int main() {
 int seed = 114;
 srand(seed);

 int M = 0, B = 7, P = 7;

 cout << "#Men: " << M << "; #Bots: " << B << endl;

 // Create an array of pointers to Player objects
 Player **players = new Player *[P];
 for (int i = 0; i < P; i++) {
  if (i < M)
    players[i] = new Man;
  else
    players[i] = new Bot;
 }

 // Define variables to track the game state
 DrawPile drawPile;
 DiscardPile discardPile;
 bool turnSkipped = false;
 int cardsToDraw = 0;
 int delta = 1;
 int turn = 0;
 bool debugMode = true;

 GameState uno;
 uno.drawPile = &drawPile;
 uno.discardPile = &discardPile;
```

```cpp
  uno.turnSkipped = &turnSkipped;
  uno.cardsToDraw = &cardsToDraw;
  uno.delta = &delta;
  uno.turn = &turn;
  uno.players = players;
  uno.debugMode = debugMode;

  drawPile.shuffle();

  // Draw the first card onto discard pile
  vector<Card *> firstCard;
  drawPile.draw(firstCard, 1);
  discardPile.stack(firstCard.at(0));

  for (int i = 0; i < P - 1; i++) {
    players[i]->drawCard(&drawPile, 5);
  }

  players[6]->drawCard(&drawPile, 1);

  int ret_code = players[0]->pickCard(uno);
  cout << "ret_code: " << ret_code << endl;

  ret_code = players[1]->pickCard(uno);
  cout << "ret_code: " << ret_code << endl;

  ret_code = players[2]->pickCard(uno);
  cout << "ret_code: " << ret_code << endl;

  ret_code = players[3]->pickCard(uno);
  cout << "ret_code: " << ret_code << endl;

  ret_code = players[4]->pickCard(uno);
  cout << "ret_code: " << ret_code << endl;

  ret_code = players[5]->pickCard(uno);
  cout << "ret_code: " << ret_code << endl;

  ret_code = players[6]->pickCard(uno);
  cout << "ret_code: " << ret_code << endl;
}
```

2.2.3   Unit Test Deck

```cpp
#include "ActionCard.h"
#include "Bot.h"
#include "DiscardPile.h"
#include "DrawPile.h"
```

```
#include "Man.h"
#include <cctype>
#include <climits>
#include <iomanip>
#include <iostream>
#include <string>

using namespace std;

int main() {
  int seed = 114;
  srand(seed);
  DrawPile drawPile;

  drawPile.print();
}
```

2.2.4   Unit Test Man

```
#include "ActionCard.h"
#include "Bot.h"
#include "DiscardPile.h"
#include "DrawPile.h"
#include "Man.h"
#include <cctype>
#include <climits>
#include <iomanip>
#include <iostream>
#include <string>

using namespace std;

int main() {
  int seed = 114;
  srand(seed);

  int M = 7, B = 0, P = 7;

  cout << "#Men: " << M << "; #Bots: " << B << endl;

  // Create an array of pointers to Player objects
  Player **players = new Player *[P];
  for (int i = 0; i < P; i++) {
    if (i < M)
      players[i] = new Man;
    else
      players[i] = new Bot;
```

```cpp
}

// Define variables to track the game state
DrawPile drawPile;
DiscardPile discardPile;
bool turnSkipped = false;
int cardsToDraw = 0;
int delta = 1;
int turn = 0;
bool debugMode = true;

GameState uno;
uno.drawPile = &drawPile;
uno.discardPile = &discardPile;
uno.turnSkipped = &turnSkipped;
uno.cardsToDraw = &cardsToDraw;
uno.delta = &delta;
uno.turn = &turn;
uno.players = players;
uno.debugMode = debugMode;

drawPile.shuffle();

// Draw the first card onto discard pile
vector<Card *> firstCard;
drawPile.draw(firstCard, 1);
discardPile.stack(firstCard.at(0));

for (int i = 0; i < P - 1; i++) {
  players[i]->drawCard(&drawPile, 5);
}

players[6]->drawCard(&drawPile, 1);

int ret_code = players[0]->pickCard(uno);
cout << "ret_code: " << ret_code << endl;

ret_code = players[1]->pickCard(uno);
cout << "ret_code: " << ret_code << endl;

ret_code = players[2]->pickCard(uno);
cout << "ret_code: " << ret_code << endl;

ret_code = players[3]->pickCard(uno);
cout << "ret_code: " << ret_code << endl;

ret_code = players[4]->pickCard(uno);
cout << "ret_code: " << ret_code << endl;

ret_code = players[5]->pickCard(uno);
```

```
    cout << "ret_code: " << ret_code << endl;

  ret_code = players[6]->pickCard(uno);
  cout << "ret_code: " << ret_code << endl;
}
```

2.2.5   Unit Test Player

```cpp
#include "ActionCard.h"
#include "Bot.h"
#include "DiscardPile.h"
#include "DrawPile.h"
#include "Man.h"
#include <cctype>
#include <climits>
#include <iomanip>
#include <iostream>
#include <string>

using namespace std;

int main() {
  int seed = 114;
  srand(seed);

  int M = 2, B = 0, P = 2;

  cout << "#Men: " << M << "; #Bots: " << B << endl;

  // Create an array of pointers to Player objects
  Player **players = new Player *[P];
  for (int i = 0; i < P; i++) {
    if (i < M)
      players[i] = new Man;
    else
      players[i] = new Bot;
  }

  // Define variables to track the game state
  bool turnSkipped = false;
  int delta = 1;
  int turn = 1;
  DrawPile drawPile;

  GameState uno;
```

```cpp
  for (int i = 0; i < P; i++) {
    players[i]->drawCard(&drawPile, H);
  }

  players[0]->printHand();
  players[1]->printHand(false);

  cout << "handPoints: " << players[0]->handPoints() << endl;
  cout << "mostFrequentColor: " << (int)players[0]->mostFrequentColor() << endl;
}
```

2.2.6   Unit Test Reverse

```cpp
#include <iostream>
#include <string>

#include "Reverse.h"

using namespace std;

int main()
{
    Card* card;

    // Define variables to track the game state
    bool turnSkipped = false;
    int delta = 1;

    GameState uno;
    // A Reverse card requires P, delta, turnSkipped only.
    uno.P = 5;
    uno.delta = &delta;
    uno.turnSkipped = &turnSkipped;

    cout << "P: " << uno.P << endl;
    cout << "delta: " << delta << endl;
    cout << "turnSkipped: " << boolalpha << turnSkipped << endl;

    Reverse br(Color::Blue);  // give xx marks if constructor works
    card = &br;
    card->play(uno);
    cout << "P: " << uno.P << endl;
    cout << "delta: " << delta << endl;
    cout << "turnSkipped: " << boolalpha << turnSkipped << endl;

    Reverse yr(Color::Yellow);
```

```
    card = &yr;
    card->play(uno);
    cout << "P: " << uno.P << endl;
    cout << "delta: " << delta << endl;
    cout << "turnSkipped: " << boolalpha << turnSkipped << endl;

    // test for 2-player games
    uno.P = 2;
    Reverse rr(Color::Red);
    card = &rr;
    card->play(uno);
    cout << "P: " << uno.P << endl;
    cout << "delta: " << delta << endl;
    cout << "turnSkipped: " << boolalpha << turnSkipped << endl;

    turnSkipped = false;

    Reverse gr(Color::Green);
    card = &gr;
    card->play(uno);
    cout << "P: " << uno.P << endl;
    cout << "delta: " << delta << endl;
    cout << "turnSkipped: " << boolalpha << turnSkipped << endl;
}
```

2.2.7   Unit Test WildCard

```
#include "ActionCard.h"
#include "Bot.h"
#include "DiscardPile.h"
#include "DrawPile.h"
#include "Man.h"
#include <cctype>
#include <climits>
#include <iomanip>
#include <iostream>
#include <string>

using namespace std;

int main() {
  int seed = 114;
  srand(seed);
  int M = 1, B = 1, P = 2;
```

```cpp
  cout << "#Men: " << M << "; #Bots: " << B << endl;

  // Create an array of pointers to Player objects
  Player **players = new Player *[P];
  for (int i = 0; i < P; i++) {
   if (i < M)
    players[i] = new Man;
   else
    players[i] = new Bot;
  }

  // Define variables to track the game state
  bool turnSkipped = false;
  int delta = 1;
  int turn = 1;
  DrawPile drawPile;

  for (int i = 0; i < P; i++) {
   players[i]->drawCard(&drawPile, H);
  }

  GameState uno;
  //
  uno.P = 5;
  uno.delta = &delta;
  uno.turnSkipped = &turnSkipped;
  uno.players = players;
  uno.turn = &turn;

  // Create a WildCard
  WildCard wc;

  cout << "Match: " << boolalpha << wc.match(&wc) << endl;

  cout << "WildCard: " << wc.toString() << endl;

  wc.play(uno);

  *uno.turn = 0;

  wc.play(uno);
}
```

2.2.8 FlowTest 1 (3 players)

Setting	input
Seed	123
Play in debug mode	Y
Max. turns to play	4
#man and #bot	0 3

Output
Cards created: [R0]=0 [R1]=1 [R2]=2 [R3]=3 [R4]=4 [R5]=5 [R6]=6 [R7]=7 [R8]=8 [R9]=9 [RR]=20 [RS]=20 [RD]=20 [RR]=20 [RS]=20 [RD]=20 [Y0]=0 [Y1]=1 [Y2]=2 [Y3]=3 [Y4]=4 [Y5]=5 [Y6]=6 [Y7]=7 [Y8]=8 [Y9]=9 [YR]=20 [YS]=20 [YD]=20 [YR]=20 [YS]=20 [YD]=20 [G0]=0 [G1]=1 [G2]=2 [G3]=3 [G4]=4 [G5]=5 [G6]=6 [G7]=7 [G8]=8 [G9]=9 [GR]=20 [GS]=20 [GD]=20 [GR]=20 [GS]=20 [GD]=20 [B0]=0 [B1]=1 [B2]=2 [B3]=3 [B4]=4 [B5]=5 [B6]=6 [B7]=7 [B8]=8 [B9]=9 [BR]=20 [BS]=20 [BD]=20 [BR]=20 [BS]=20 [BD]=20 [WC]=50 [WD]=50 [WC]=50 [WD]=50 [WC]=50 [WD]=50 [WC]=50 [WD]=50 Player 1 (Bot) drawn 7 card(s). Player 2 (Bot) drawn 7 card(s). Player 3 (Bot) drawn 7 card(s). Draw pile after shuffling and dealing: [G0]=0 [Y3]=3 [RS]=20 [WC]=50 [R1]=1 [GD]=20 [RR]=20 [RD]=20 [BD]=20 [WC]=50 [R8]=8 [Y2]=2 [WC]=50 [WD]=50 [G5]=5 [R7]=7 [G3]=3 [WD]=50 [YS]=20 [G9]=9 [B1]=1 [R4]=4 [RR]=20 [GR]=20 [G2]=2 [B0]=0 [B2]=2 [G1]=1 [B3]=3 [BD]=20 [GD]=20 [Y0]=0 [G6]=6 [RD]=20 [B8]=8 [Y4]=4 [R0]=0 [G8]=8 [YR]=20 [BR]=20 [BR]=20 [BS]=20 [R3]=3 [Y1]=1 [R6]=6 [YD]=20 [WC]=50 [B6]=6 [Y7]=7 [R5]=5
== Turn 1: Discard Pile: [Y5] Current Color: Yellow Draw Pile: 50 -- Player 1 (Bot): [BS] [B4] [YR] [WD] [GS] [B5] [GS] Discarded [YR]
== Turn 2: Discard Pile: [YR] Current Color: Yellow Draw Pile: 50 -- Player 3 (Bot): [WD] [R9] [Y8] [GR] [B9] [G7] [Y6] Discarded [WD] Color changed to Yellow! ==

```
========================================================
Turn 3:
Discard Pile: [WD]  Current Color: Yellow  Draw Pile: 50
-------------------------------------------------------
Player 2 (Bot):
Player 2 (Bot) drawn 4 card(s).
Turn skipped!
========================================================
```

```
========================================================
Turn 4:
Discard Pile: [WD]  Current Color: Yellow  Draw Pile: 46
-------------------------------------------------------
Player 1 (Bot):
[BS] [B4] [WD] [GS] [B5] [GS]
Discarded [WD]
Color changed to Blue!
```

```
**********
Game Over!
**********
Player 1 (Bot) owes   69 point(s): [BS] [B4] [GS] [B5] [GS]
Player 2 (Bot) owes  155 point(s): [Y9] [RS] [B7] [YD] [G4] [R2] [YS] [G0]
[Y3] [RS] [WC]
Player 3 (Bot) owes   59 point(s): [R9] [Y8] [GR] [B9] [G7] [Y6]
The winner is Player 3 (Bot)!
```

2.2.9   FlowTest 2

Setting	input
Seed	123
Play in debug mode	N
Max. turns to play	4
#man and #bot	0 3

Output
Player 1 (Bot) drawn 7 card(s).
Player 2 (Bot) drawn 7 card(s).
Player 3 (Bot) drawn 7 card(s).
==
Turn 1:
Discard Pile: [Y5] Current Color: Yellow Draw Pile: 50

Player 1 (Bot):
[Uno] [Uno] [Uno] [Uno] [Uno] [Uno] [Uno]
Discarded [YR]
==
Turn 2:
Discard Pile: [YR] Current Color: Yellow Draw Pile: 50

Player 3 (Bot):

```
[Uno] [Uno] [Uno] [Uno] [Uno] [Uno] [Uno]
Discarded [WD]
Color changed to Yellow!
=======================================================
Turn 3:
Discard Pile: [WD]  Current Color: Yellow  Draw Pile: 50
--------------------------------------------------------
Player 2 (Bot):
Player 2 (Bot) drawn 4 card(s).
Turn skipped!
=======================================================
Turn 4:
Discard Pile: [WD]  Current Color: Yellow  Draw Pile: 46
--------------------------------------------------------
Player 1 (Bot):
[Uno] [Uno] [Uno] [Uno] [Uno] [Uno]
Discarded [WD]
Color changed to Blue!
**********
Game Over!
**********
Player 1 (Bot) owes   69 point(s): [BS] [B4] [GS] [B5] [GS]
Player 2 (Bot) owes  155 point(s): [Y9] [RS] [B7] [YD] [G4] [R2] [YS] [G0] [Y3]
[RS] [WC]
Player 3 (Bot) owes   59 point(s): [R9] [Y8] [GR] [B9] [G7] [Y6]
The winner is Player 3 (Bot)!
```

2.2.10 FlowTest 3 —Requires human input

Setting	input
Seed	1
Play in debug mode	N
Max. turns to play	15
#man and #bot	1 2

Output	Human input

`=======================================================`
`Turn 1:`
`Discard Pile: [GD]  Current Color: Green   Draw Pile: 50`
`--------------------------------------------------------`
`Player 1 (Man):`
` [0][RD]  [x][R1]  [x][B8]  [x][B1]  [x][R0]  [x][YS]  [6][G4]  [D]raw`
`Enter option:`	

	2

Invalid option! Enter option:	
	R
Invalid option! Enter option:	
	7
Invalid option! Enter option:	
	d
Player 1 (Man) drawn 1 card(s). Drawn [Y6]	
== Turn 2: Discard Pile: [GD] Current Color: Green Draw Pile: 49 -- Player 2 (Bot): [Uno] [Uno] [Uno] [Uno] [Uno] [Uno] [Uno] Discarded [YD] == Turn 3: Discard Pile: [YD] Current Color: Yellow Draw Pile: 49 -- Player 3 (Bot): Player 3 (Bot) drawn 2 card(s). Turn skipped! == Turn 4: Discard Pile: [YD] Current Color: Yellow Draw Pile: 47 -- Player 1 (Man): [0][RD] [x][R1] [x][B8] [x][B1] [x][R0] [5][YS] [x][G4] [7][Y6] [D]raw Enter option:	
	7
Discarded [Y6] == Turn 5: Discard Pile: [Y6] Current Color: Yellow Draw Pile: 47 -- Player 2 (Bot): [Uno] [Uno] [Uno] [Uno] [Uno] [Uno] Discarded [YR] == Turn 6: Discard Pile: [YR] Current Color: Yellow Draw Pile: 47 -- Player 1 (Man):	

[x][RD] [x][R1] [x][B8] [x][B1] [x][R0] [5][YS] [x][G4] [D]raw Enter option:	
	5

Discarded [YS]
===
Turn 7:
Discard Pile: [YS] Current Color: Yellow Draw Pile: 47

Player 3 (Bot):
Turn skipped!
===
Turn 8:
Discard Pile: [YS] Current Color: Yellow Draw Pile: 47

Player 2 (Bot):
[Uno] [Uno] [Uno] [Uno] [Uno]
Discarded [WD]
Color changed to Green!
===
Turn 9:
Discard Pile: [WD] Current Color: Green   Draw Pile: 47

Player 1 (Man):
Player 1 (Man) drawn 4 card(s).
Turn skipped!
===
Turn 10:
Discard Pile: [WD] Current Color: Green   Draw Pile: 43

Player 3 (Bot):
[Uno] [Uno] [Uno] [Uno] [Uno] [Uno] [Uno] [Uno] [Uno]
Discarded [G2]
===
Turn 11:
Discard Pile: [G2] Current Color: Green   Draw Pile: 43

Player 2 (Bot):
[Uno] [Uno] [Uno] [Uno]
Discarded [GR]
===
Turn 12:
Discard Pile: [GR] Current Color: Green   Draw Pile: 43

Player 3 (Bot):
[Uno] [Uno] [Uno] [Uno] [Uno] [Uno] [Uno] [Uno]
Discarded [YR]
===
Turn 13:

Discard Pile: [YR] Current Color: Yellow Draw Pile: 43 -- Player 2 (Bot): [Uno] [Uno] [Uno] Discarded [WC] Color changed to Green! == Turn 14: Discard Pile: [WC] Current Color: Green Draw Pile: 43 -- Player 1 (Man): [x][RD] [x][R1] [x][B8] [x][B1] [x][R0] [5][G4] [x][R7] [x][R6] [x][RS] [9][WC] [D]raw Enter option:	
	9
Discarded [WC] Choose a color [R, Y, G, B]:	
	1
Invalid option! Choose a color [R, Y, G, B]:	
	C
Invalid option! Choose a color [R, Y, G, B]:	
	R
Color changed to Red! == Turn 15: Discard Pile: [WC] Current Color: Red Draw Pile: 43 -- Player 3 (Bot): [Uno] [Uno] [Uno] [Uno] [Uno] [Uno] [Uno] Discarded [R8] ********** Game Over! ********** Player 1 (Man) owes 67 point(s): [RD] [R1] [B8] [B1] [R0] [G4] [R7] [R6] [RS] Player 2 (Bot) owes 20 point(s): [GS] [G0] Player 3 (Bot) owes 50 point(s): [BS] [B3] [B6] [B0] [Y1] [YS] The winner is Player 2 (Bot)!	

2.2.11   FlowTest 4

Setting	input

Seed	1
Play in debug mode	Y
Max. turns to play	7
#man and #bot	0 2

Output
Cards created: [R0]=0 [R1]=1 [R2]=2 [R3]=3 [R4]=4 [R5]=5 [R6]=6 [R7]=7 [R8]=8 [R9]=9 [RR]=20 [RS]=20 [RD]=20 [RR]=20 [RS]=20 [RD]=20 [Y0]=0 [Y1]=1 [Y2]=2 [Y3]=3 [Y4]=4 [Y5]=5 [Y6]=6 [Y7]=7 [Y8]=8 [Y9]=9 [YR]=20 [YS]=20 [YD]=20 [YR]=20 [YS]=20 [YD]=20 [G0]=0 [G1]=1 [G2]=2 [G3]=3 [G4]=4 [G5]=5 [G6]=6 [G7]=7 [G8]=8 [G9]=9 [GR]=20 [GS]=20 [GD]=20 [GR]=20 [GS]=20 [GD]=20 [B0]=0 [B1]=1 [B2]=2 [B3]=3 [B4]=4 [B5]=5 [B6]=6 [B7]=7 [B8]=8 [B9]=9 [BR]=20 [BS]=20 [BD]=20 [BR]=20 [BS]=20 [BD]=20 [WC]=50 [WD]=50 [WC]=50 [WD]=50 [WC]=50 [WD]=50 [WC]=50 [WD]=50 Player 1 (Bot) drawn 7 card(s). Player 2 (Bot) drawn 7 card(s). Draw pile after shuffling and dealing: [B3]=3 [YR]=20 [B6]=6 [B0]=0 [Y1]=1 [R8]=8 [GD]=20 [Y6]=6 [G2]=2 [YS]=20 [R7]=7 [R6]=6 [RS]=20 [WC]=50 [R4]=4 [R2]=2 [B4]=4 [GR]=20 [G3]=3 [WD]=50 [BR]=20 [Y9]=9 [R3]=3 [WD]=50 [Y0]=0 [WC]=50 [G5]=5 [RS]=20 [RR]=20 [Y8]=8 [WD]=50 [B5]=5 [Y3]=3 [Y4]=4 [GD]=20 [BD]=20 [G1]=1 [Y5]=5 [YD]=20 [G9]=9 [BD]=20 [R9]=9 [G7]=7 [BS]=20 [BR]=20 [B9]=9 [B7]=7 [WC]=50 [RR]=20 [R5]=5 [Y2]=2 [Y7]=7 [B2]=2 [G8]=8 [GS]=20 [G6]=6 [RD]=20
== Turn 1: Discard Pile: [BS] Current Color: Blue   Draw Pile: 57 --- Player 1 (Bot): [RD] [R1] [B8] [B1] [R0] [YS] [G4] Discarded [B8]
== Turn 2: Discard Pile: [B8] Current Color: Blue   Draw Pile: 57 --- Player 2 (Bot): [YD] [YR] [GR] [WD] [GS] [G0] [WC] Discarded [WD]

Color changed to Green!

==

Turn 3:

Discard Pile: [WD] Current Color: Green   Draw Pile: 57

Player 1 (Bot):

Player 1 (Bot) drawn 4 card(s).

Turn skipped!

==

Turn 4:

Discard Pile: [WD] Current Color: Green   Draw Pile: 53

Player 2 (Bot):

[YD] [YR] [GR] [GS] [G0] [WC]

Discarded [GR]

==

Turn 5:

Discard Pile: [GR] Current Color: Green   Draw Pile: 53

Player 1 (Bot):

Turn skipped!

==

Turn 6:

Discard Pile: [GR] Current Color: Green   Draw Pile: 53

Player 2 (Bot):

[YD] [YR] [GS] [G0] [WC]

Discarded [YR]

==

Turn 7:

Discard Pile: [YR] Current Color: Yellow Draw Pile: 53

Player 1 (Bot):

Turn skipped!

****

Game Over!

****

Player 1 (Bot) owes   75 point(s): [RD] [R1] [B1] [R0] [YS] [G4] [B3] [YR] [B6] [B0]

Player 2 (Bot) owes   90 point(s): [YD] [GS] [G0] [WC]

The winner is Player 1 (Bot)!

2.2.12   FlowTest 5

| Setting | input |

Seed	278
Play in debug mode	Y
Max. turns to play	50
#man and #bot	0 5

Outputs
Cards created:
[R0]=0 [R1]=1 [R2]=2 [R3]=3 [R4]=4 [R5]=5 [R6]=6 [R7]=7 [R8]=8 [R9]=9
[RR]=20 [RS]=20 [RD]=20 [RR]=20 [RS]=20 [RD]=20 [Y0]=0 [Y1]=1 [Y2]=2
[Y3]=3
[Y4]=4 [Y5]=5 [Y6]=6 [Y7]=7 [Y8]=8 [Y9]=9 [YR]=20 [YS]=20 [YD]=20
[YR]=20
[YS]=20 [YD]=20 [G0]=0 [G1]=1 [G2]=2 [G3]=3 [G4]=4 [G5]=5 [G6]=6
[G7]=7
[G8]=8 [G9]=9 [GR]=20 [GS]=20 [GD]=20 [GR]=20 [GS]=20 [GD]=20 [B0]=0
[B1]=1
[B2]=2 [B3]=3 [B4]=4 [B5]=5 [B6]=6 [B7]=7 [B8]=8 [B9]=9 [BR]=20
[BS]=20
[BD]=20 [BR]=20 [BS]=20 [BD]=20 [WC]=50 [WD]=50 [WC]=50 [WD]=50
[WC]=50 [WD]=50
[WC]=50 [WD]=50
Player 1 (Bot) drawn 7 card(s).
Player 2 (Bot) drawn 7 card(s).
Player 3 (Bot) drawn 7 card(s).
Player 4 (Bot) drawn 7 card(s).
Player 5 (Bot) drawn 7 card(s).
Draw pile after shuffling and dealing:
[R0]=0 [WC]=50 [Y2]=2 [G4]=4 [WD]=50 [YD]=20 [BS]=20 [GS]=20 [RD]=20
[G3]=3
[GS]=20 [GD]=20 [BS]=20 [WC]=50 [B6]=6 [BD]=20 [R7]=7 [BD]=20 [GD]=20
[R6]=6
[B1]=1 [WD]=50 [G7]=7 [G8]=8 [G5]=5 [YR]=20 [B9]=9 [R8]=8 [Y1]=1
[Y5]=5
[WD]=50 [B0]=0 [Y0]=0 [WC]=50 [B5]=5 [G1]=1
==
Turn 1:
Discard Pile: [Y9] Current Color: Yellow Draw Pile: 36

Player 1 (Bot):
[R1] [WC] [R9] [B3] [Y6] [G9] [GR]
Discarded [WC]
Color changed to Red!
==
Turn 2:
Discard Pile: [WC] Current Color: Red   Draw Pile: 36

Player 2 (Bot):
[G6] [B8] [Y8] [RS] [G0] [R5] [RR]
Discarded [RS]
==

Turn 3:
Discard Pile: [RS] Current Color: Red   Draw Pile: 36

Player 3 (Bot):
Turn skipped!
===
Turn 4:
Discard Pile: [RS] Current Color: Red   Draw Pile: 36

Player 4 (Bot):
[RS] [R2] [B4] [Y7] [BR] [RD] [R3]
Discarded [RS]
===
Turn 5:
Discard Pile: [RS] Current Color: Red   Draw Pile: 36

Player 5 (Bot):
Turn skipped!
===
Turn 6:
Discard Pile: [RS] Current Color: Red   Draw Pile: 36

Player 1 (Bot):
[R1] [R9] [B3] [Y6] [G9] [GR]
Discarded [R1]
===
Turn 7:
Discard Pile: [R1] Current Color: Red   Draw Pile: 36

Player 2 (Bot):
[G6] [B8] [Y8] [G0] [R5] [RR]
Discarded [R5]
===
Turn 8:
Discard Pile: [R5] Current Color: Red   Draw Pile: 36

Player 3 (Bot):
[G2] [B7] [RR] [Y3] [WD] [R4] [YS]
Discarded [RR]
===
Turn 9:
Discard Pile: [RR] Current Color: Red   Draw Pile: 36

Player 2 (Bot):
[G6] [B8] [Y8] [G0] [RR]
Discarded [RR]
===
Turn 10:
Discard Pile: [RR] Current Color: Red   Draw Pile: 36

Player 3 (Bot):
[G2] [B7] [Y3] [WD] [R4] [YS]
Discarded [WD]

Color changed to Yellow!
==
Turn 11:
Discard Pile: [WD] Current Color: Yellow Draw Pile: 36

Player 4 (Bot):
Player 4 (Bot) drawn 4 card(s).
Turn skipped!
==
Turn 12:
Discard Pile: [WD] Current Color: Yellow Draw Pile: 32

Player 5 (Bot):
[YS] [YR] [BR] [YD] [B2] [GR] [Y4]
Discarded [YS]
==
Turn 13:
Discard Pile: [YS] Current Color: Yellow Draw Pile: 32

Player 1 (Bot):
Turn skipped!
==
Turn 14:
Discard Pile: [YS] Current Color: Yellow Draw Pile: 32

Player 2 (Bot):
[G6] [B8] [Y8] [G0]
Discarded [Y8]
==
Turn 15:
Discard Pile: [Y8] Current Color: Yellow Draw Pile: 32

Player 3 (Bot):
[G2] [B7] [Y3] [R4] [YS]
Discarded [Y3]
==
Turn 16:
Discard Pile: [Y3] Current Color: Yellow Draw Pile: 32

Player 4 (Bot):
[R2] [B4] [Y7] [BR] [RD] [R3] [R0] [WC] [Y2] [G4]
Discarded [Y7]
==
Turn 17:
Discard Pile: [Y7] Current Color: Yellow Draw Pile: 32

Player 5 (Bot):
[YR] [BR] [YD] [B2] [GR] [Y4]
Discarded [YR]
==
Turn 18:
Discard Pile: [YR] Current Color: Yellow Draw Pile: 32

Player 4 (Bot):
[R2] [B4] [BR] [RD] [R3] [R0] [WC] [Y2] [G4]
Discarded [BR]
==
Turn 19:
Discard Pile: [BR] Current Color: Blue   Draw Pile: 32

Player 5 (Bot):
[BR] [YD] [B2] [GR] [Y4]
Discarded [BR]
==
Turn 20:
Discard Pile: [BR] Current Color: Blue   Draw Pile: 32

Player 4 (Bot):
[R2] [B4] [RD] [R3] [R0] [WC] [Y2] [G4]
Discarded [B4]
==
Turn 21:
Discard Pile: [B4] Current Color: Blue   Draw Pile: 32

Player 3 (Bot):
[G2] [B7] [R4] [YS]
Discarded [B7]
==
Turn 22:
Discard Pile: [B7] Current Color: Blue   Draw Pile: 32

Player 2 (Bot):
[G6] [B8] [G0]
Discarded [B8]
==
Turn 23:
Discard Pile: [B8] Current Color: Blue   Draw Pile: 32

Player 1 (Bot):
[R9] [B3] [Y6] [G9] [GR]
Discarded [B3]
==
Turn 24:
Discard Pile: [B3] Current Color: Blue   Draw Pile: 32

Player 5 (Bot):
[YD] [B2] [GR] [Y4]
Discarded [B2]
==
Turn 25:
Discard Pile: [B2] Current Color: Blue   Draw Pile: 32

Player 4 (Bot):
[R2] [RD] [R3] [R0] [WC] [Y2] [G4]
Discarded [R2]

```
========================================================
Turn 26:
Discard Pile: [R2]  Current Color: Red     Draw Pile: 32
--------------------------------------------------------
Player 3 (Bot):
[G2] [R4] [YS]
Discarded [G2]
========================================================
Turn 27:
Discard Pile: [G2]  Current Color: Green   Draw Pile: 32
--------------------------------------------------------
Player 2 (Bot):
[G6] [G0]
Discarded [G6]
========================================================
Turn 28:
Discard Pile: [G6]  Current Color: Green   Draw Pile: 32
--------------------------------------------------------
Player 1 (Bot):
[R9] [Y6] [G9] [GR]
Discarded [Y6]
========================================================
Turn 29:
Discard Pile: [Y6]  Current Color: Yellow  Draw Pile: 32
--------------------------------------------------------
Player 5 (Bot):
[YD] [GR] [Y4]
Discarded [YD]
========================================================
Turn 30:
Discard Pile: [YD]  Current Color: Yellow  Draw Pile: 32
--------------------------------------------------------
Player 4 (Bot):
Player 4 (Bot) drawn 2 card(s).
Turn skipped!
========================================================
Turn 31:
Discard Pile: [YD]  Current Color: Yellow  Draw Pile: 30
--------------------------------------------------------
Player 3 (Bot):
[R4] [YS]
Discarded [YS]
========================================================
Turn 32:
Discard Pile: [YS]  Current Color: Yellow  Draw Pile: 30
--------------------------------------------------------
Player 2 (Bot):
Turn skipped!
========================================================
Turn 33:
Discard Pile: [YS]  Current Color: Yellow  Draw Pile: 30
--------------------------------------------------------
```

```
Player 1 (Bot):
[R9] [G9] [GR]
Player 1 (Bot) drawn 1 card(s).
Drawn [BS]
Discarded [BS]
========================================================
Turn 34:
Discard Pile: [BS]  Current Color: Blue    Draw Pile: 29
--------------------------------------------------------
Player 5 (Bot):
Turn skipped!
========================================================
Turn 35:
Discard Pile: [BS]  Current Color: Blue    Draw Pile: 29
--------------------------------------------------------
Player 4 (Bot):
[RD] [R3] [R0] [WC] [Y2] [G4] [WD] [YD]
Discarded [WC]
Color changed to Red!
========================================================
Turn 36:
Discard Pile: [WC]  Current Color: Red     Draw Pile: 29
--------------------------------------------------------
Player 3 (Bot):
[R4]
Discarded [R4]
**********
Game Over!
**********
Player 1 (Bot) owes   38 point(s): [R9] [G9] [GR]
Player 2 (Bot) owes    0 point(s): [G0]
Player 3 (Bot) owes    0 point(s):
Player 4 (Bot) owes   99 point(s): [RD] [R3] [R0] [Y2] [G4] [WD] [YD]
Player 5 (Bot) owes   24 point(s): [GR] [Y4]
The winner is Player 3 (Bot)!
```

2.2.13 FlowTest 6

Setting	input
Seed	21
Play in debug mode	Y
Max. turns to play	100
#man and #bot	0 5

Outputs
Cards created:

[R0]=0 [R1]=1 [R2]=2 [R3]=3 [R4]=4 [R5]=5 [R6]=6 [R7]=7 [R8]=8 [R9]=9
[RR]=20 [RS]=20 [RD]=20 [RR]=20 [RS]=20 [RD]=20 [Y0]=0 [Y1]=1 [Y2]=2 [Y3]=3
[Y4]=4 [Y5]=5 [Y6]=6 [Y7]=7 [Y8]=8 [Y9]=9 [YR]=20 [YS]=20 [YD]=20 [YR]=20
[YS]=20 [YD]=20 [G0]=0 [G1]=1 [G2]=2 [G3]=3 [G4]=4 [G5]=5 [G6]=6 [G7]=7
[G8]=8 [G9]=9 [GR]=20 [GS]=20 [GD]=20 [GR]=20 [GS]=20 [GD]=20 [B0]=0 [B1]=1
[B2]=2 [B3]=3 [B4]=4 [B5]=5 [B6]=6 [B7]=7 [B8]=8 [B9]=9 [BR]=20 [BS]=20
[BD]=20 [BR]=20 [BS]=20 [BD]=20 [WC]=50 [WD]=50 [WC]=50 [WD]=50 [WC]=50 [WD]=50
[WC]=50 [WD]=50
Player 1 (Bot) drawn 7 card(s).
Player 2 (Bot) drawn 7 card(s).
Player 3 (Bot) drawn 7 card(s).
Player 4 (Bot) drawn 7 card(s).
Player 5 (Bot) drawn 7 card(s).
Draw pile after shuffling and dealing:
[GD]=20 [G0]=0 [YR]=20 [B4]=4 [Y7]=7 [RR]=20 [B6]=6 [G6]=6 [G8]=8 [R3]=3
[Y5]=5 [R1]=1 [R0]=0 [WD]=50 [BD]=20 [RD]=20 [GR]=20 [Y9]=9 [BS]=20 [YD]=20
[B0]=0 [R8]=8 [G3]=3 [BS]=20 [G1]=1 [Y0]=0 [WC]=50 [R5]=5 [WD]=50 [RR]=20
[YD]=20 [BR]=20 [B1]=1 [Y8]=8 [R2]=2 [YR]=20
===
Turn 1:
Discard Pile: [WC] Current Color: Wild   Draw Pile: 36

Player 1 (Bot):
[YS] [R6] [B2] [R9] [RS] [BD] [WC]
Discarded [WC]
Color changed to Red!
===
Turn 2:
Discard Pile: [WC] Current Color: Red   Draw Pile: 36

Player 2 (Bot):
[B9] [R7] [Y6] [GR] [Y2] [WC] [B3]
Discarded [R7]
===
Turn 3:
Discard Pile: [R7] Current Color: Red   Draw Pile: 36

Player 3 (Bot):
[Y3] [WD] [R4] [B8] [B7] [GS] [Y1]
Discarded [WD]
Color changed to Yellow!
===
Turn 4:
Discard Pile: [WD] Current Color: Yellow Draw Pile: 36

Player 4 (Bot):
Player 4 (Bot) drawn 4 card(s).
Turn skipped!
===
Turn 5:
Discard Pile: [WD] Current Color: Yellow Draw Pile: 32

Player 5 (Bot):
[RS] [GS] [G5] [G7] [Y4] [G4] [B5]
Discarded [Y4]
===
Turn 6:
Discard Pile: [Y4] Current Color: Yellow Draw Pile: 32

Player 1 (Bot):
[YS] [R6] [B2] [R9] [RS] [BD]
Discarded [YS]
===
Turn 7:
Discard Pile: [YS] Current Color: Yellow Draw Pile: 32

Player 2 (Bot):
Turn skipped!
===
Turn 8:
Discard Pile: [YS] Current Color: Yellow Draw Pile: 32

Player 3 (Bot):
[Y3] [R4] [B8] [B7] [GS] [Y1]
Discarded [Y3]
===
Turn 9:
Discard Pile: [Y3] Current Color: Yellow Draw Pile: 32

Player 4 (Bot):
[G9] [G2] [WD] [YS] [RD] [BR] [GD] [GD] [G0] [YR] [B4]
Discarded [WD]
Color changed to Green!
===
Turn 10:
Discard Pile: [WD] Current Color: Green   Draw Pile: 32

Player 5 (Bot):
Player 5 (Bot) drawn 4 card(s).
Turn skipped!
===
Turn 11:
Discard Pile: [WD] Current Color: Green   Draw Pile: 28

Player 1 (Bot):
[R6] [B2] [R9] [RS] [BD]
Player 1 (Bot) drawn 1 card(s).
Drawn [G8]
Discarded [G8]
===
Turn 12:
Discard Pile: [G8] Current Color: Green   Draw Pile: 27

Player 2 (Bot):
[B9] [Y6] [GR] [Y2] [WC] [B3]
Discarded [GR]
===
Turn 13:
Discard Pile: [GR] Current Color: Green   Draw Pile: 27

Player 1 (Bot):
[R6] [B2] [R9] [RS] [BD]
Player 1 (Bot) drawn 1 card(s).
Drawn [R3]
===
Turn 14:
Discard Pile: [GR] Current Color: Green   Draw Pile: 26

Player 5 (Bot):
[RS] [GS] [G5] [G7] [G4] [B5] [Y7] [RR] [B6] [G6]
Discarded [GS]
===
Turn 15:
Discard Pile: [GS] Current Color: Green   Draw Pile: 26

Player 4 (Bot):
Turn skipped!
===
Turn 16:
Discard Pile: [GS] Current Color: Green   Draw Pile: 26

Player 3 (Bot):

[R4] [B8] [B7] [GS] [Y1]
Discarded [GS]
==
Turn 17:
Discard Pile: [GS] Current Color: Green   Draw Pile: 26

Player 2 (Bot):
Turn skipped!
==
Turn 18:
Discard Pile: [GS] Current Color: Green   Draw Pile: 26

Player 1 (Bot):
[R6] [B2] [R9] [RS] [BD] [R3]
Discarded [RS]
==
Turn 19:
Discard Pile: [RS] Current Color: Red   Draw Pile: 26

Player 5 (Bot):
Turn skipped!
==
Turn 20:
Discard Pile: [RS] Current Color: Red   Draw Pile: 26

Player 4 (Bot):
[G9] [G2] [YS] [RD] [BR] [GD] [GD] [G0] [YR] [B4]
Discarded [YS]
==
Turn 21:
Discard Pile: [YS] Current Color: Yellow Draw Pile: 26

Player 3 (Bot):
Turn skipped!
==
Turn 22:
Discard Pile: [YS] Current Color: Yellow Draw Pile: 26

Player 2 (Bot):
[B9] [Y6] [Y2] [WC] [B3]
Discarded [Y6]
==
Turn 23:
Discard Pile: [Y6] Current Color: Yellow Draw Pile: 26

Player 1 (Bot):
[R6] [B2] [R9] [BD] [R3]
Discarded [R6]
==
Turn 24:
Discard Pile: [R6] Current Color: Red   Draw Pile: 26

Player 5 (Bot):
[RS] [G5] [G7] [G4] [B5] [Y7] [RR] [B6] [G6]
Discarded [RS]
==
Turn 25:
Discard Pile: [RS] Current Color: Red   Draw Pile: 26

Player 4 (Bot):
Turn skipped!
==
Turn 26:
Discard Pile: [RS] Current Color: Red   Draw Pile: 26

Player 3 (Bot):

[R4] [B8] [B7] [Y1]
Discarded [R4]
===
Turn 27:
Discard Pile: [R4] Current Color: Red   Draw Pile: 26

Player 2 (Bot):
[B9] [Y2] [WC] [B3]
Discarded [WC]
Color changed to Blue!
===
Turn 28:
Discard Pile: [WC] Current Color: Blue   Draw Pile: 26

Player 1 (Bot):
[B2] [R9] [BD] [R3]
Discarded [B2]
===
Turn 29:
Discard Pile: [B2] Current Color: Blue   Draw Pile: 26

Player 5 (Bot):
[G5] [G7] [G4] [B5] [Y7] [RR] [B6] [G6]
Discarded [B5]
===
Turn 30:
Discard Pile: [B5] Current Color: Blue   Draw Pile: 26

Player 4 (Bot):
[G9] [G2] [RD] [BR] [GD] [GD] [G0] [YR] [B4]
Discarded [BR]
===
Turn 31:
Discard Pile: [BR] Current Color: Blue   Draw Pile: 26

Player 5 (Bot):
[G5] [G7] [G4] [Y7] [RR] [B6] [G6]
Discarded [RR]
===
Turn 32:
Discard Pile: [RR] Current Color: Red   Draw Pile: 26

Player 4 (Bot):
[G9] [G2] [RD] [GD] [GD] [G0] [YR] [B4]
Discarded [RD]
===
Turn 33:
Discard Pile: [RD] Current Color: Red   Draw Pile: 26

Player 3 (Bot):
Player 3 (Bot) drawn 2 card(s).
Turn skipped!
===
Turn 34:
Discard Pile: [RD] Current Color: Red   Draw Pile: 24

Player 2 (Bot):
[B9] [Y2] [B3]
Player 2 (Bot) drawn 1 card(s).
Drawn [R0]
Discarded [R0]
===
Turn 35:
Discard Pile: [R0] Current Color: Red   Draw Pile: 23

Player 1 (Bot):

[R9] [BD] [R3]
Discarded [R9]
===
Turn 36:
Discard Pile: [R9] Current Color: Red   Draw Pile: 23

Player 5 (Bot):
[G5] [G7] [G4] [Y7] [B6] [G6]
Player 5 (Bot) drawn 1 card(s).
Drawn [WD]
Discarded [WD]
Color changed to Green!
===
Turn 37:
Discard Pile: [WD] Current Color: Green   Draw Pile: 22

Player 4 (Bot):
Player 4 (Bot) drawn 4 card(s).
Turn skipped!
===
Turn 38:
Discard Pile: [WD] Current Color: Green   Draw Pile: 18

Player 3 (Bot):
[B8] [B7] [Y1] [Y5] [R1]
Player 3 (Bot) drawn 1 card(s).
Drawn [BS]
===
Turn 39:
Discard Pile: [WD] Current Color: Green   Draw Pile: 17

Player 2 (Bot):
[B9] [Y2] [B3]
Player 2 (Bot) drawn 1 card(s).
Drawn [YD]
===
Turn 40:
Discard Pile: [WD] Current Color: Green   Draw Pile: 16

Player 1 (Bot):
[BD] [R3]
Player 1 (Bot) drawn 1 card(s).
Drawn [B0]
===
Turn 41:
Discard Pile: [WD] Current Color: Green   Draw Pile: 15

Player 5 (Bot):
[G5] [G7] [G4] [Y7] [B6] [G6]
Discarded [G5]
===
Turn 42:
Discard Pile: [G5] Current Color: Green   Draw Pile: 15

Player 4 (Bot):
[G9] [G2] [GD] [GD] [G0] [YR] [B4] [BD] [RD] [GR] [Y9]
Discarded [G9]
===
Turn 43:
Discard Pile: [G9] Current Color: Green   Draw Pile: 15

Player 3 (Bot):
[B8] [B7] [Y1] [Y5] [R1] [BS]
Player 3 (Bot) drawn 1 card(s).
Drawn [R8]
===

Turn 44:
Discard Pile: [G9] Current Color: Green   Draw Pile: 14

Player 2 (Bot):
[B9] [Y2] [B3] [YD]
Discarded [B9]
===
Turn 45:
Discard Pile: [B9] Current Color: Blue   Draw Pile: 14

Player 1 (Bot):
[BD] [R3] [B0]
Discarded [BD]
===
Turn 46:
Discard Pile: [BD] Current Color: Blue   Draw Pile: 14

Player 5 (Bot):
Player 5 (Bot) drawn 2 card(s).
Turn skipped!
===
Turn 47:
Discard Pile: [BD] Current Color: Blue   Draw Pile: 12

Player 4 (Bot):
[G2] [GD] [GD] [G0] [YR] [B4] [BD] [RD] [GR] [Y9]
Discarded [GD]
===
Turn 48:
Discard Pile: [GD] Current Color: Green Draw Pile: 12

Player 3 (Bot):
Player 3 (Bot) drawn 2 card(s).
Turn skipped!
===
Turn 49:
Discard Pile: [GD] Current Color: Green Draw Pile: 10

Player 2 (Bot):
[Y2] [B3] [YD]
Discarded [YD]
===
Turn 50:
Discard Pile: [YD] Current Color: Yellow Draw Pile: 10

Player 1 (Bot):
Player 1 (Bot) drawn 2 card(s).
Turn skipped!
===
Turn 51:
Discard Pile: [YD] Current Color: Yellow Draw Pile: 8

Player 5 (Bot):
[G7] [G4] [Y7] [B6] [G6] [G3] [BS]
Discarded [Y7]
===
Turn 52:
Discard Pile: [Y7] Current Color: Yellow Draw Pile: 8

Player 4 (Bot):
[G2] [GD] [G0] [YR] [B4] [BD] [RD] [GR] [Y9]
Discarded [YR]
===
Turn 53:
Discard Pile: [YR] Current Color: Yellow Draw Pile: 8

Player 5 (Bot):
[G7] [G4] [B6] [G6] [G3] [BS]
Player 5 (Bot) drawn 1 card(s).
Drawn [WD]
Discarded [WD]
Color changed to Green!
===
Turn 54:
Discard Pile: [WD] Current Color: Green   Draw Pile: 7

Player 1 (Bot):
Player 1 (Bot) drawn 4 card(s).
Turn skipped!
===
Turn 55:
Discard Pile: [WD] Current Color: Green   Draw Pile: 3

Player 2 (Bot):
[Y2] [B3]
Player 2 (Bot) drawn 1 card(s).
Drawn [Y8]
===
Turn 56:
Discard Pile: [WD] Current Color: Green   Draw Pile: 2

Player 3 (Bot):
[B8] [B7] [Y1] [Y5] [R1] [BS] [R8] [G1] [Y0]
Discarded [G1]
===
Turn 57:
Discard Pile: [G1] Current Color: Green   Draw Pile: 2

Player 4 (Bot):
[G2] [GD] [G0] [B4] [BD] [RD] [GR] [Y9]
Discarded [G2]
===
Turn 58:
Discard Pile: [G2] Current Color: Green   Draw Pile: 2

Player 5 (Bot):
[G7] [G4] [B6] [G6] [G3] [BS]
Discarded [G7]
===
Turn 59:
Discard Pile: [G7] Current Color: Green   Draw Pile: 2

Player 1 (Bot):
[R3] [B0] [WC] [R5] [RR] [YD] [BR] [B1]
Discarded [WC]
Color changed to Red!
===
Turn 60:
Discard Pile: [WC] Current Color: Red   Draw Pile: 2

Player 2 (Bot):
[Y2] [B3] [Y8]
Player 2 (Bot) drawn 1 card(s).
Drawn [R2]
Discarded [R2]
===
Turn 61:
Discard Pile: [R2] Current Color: Red   Draw Pile: 1

Player 3 (Bot):
[B8] [B7] [Y1] [Y5] [R1] [BS] [R8] [Y0]
Discarded [R1]

```
=======================================================
Turn 62:
Discard Pile: [R1]  Current Color: Red    Draw Pile: 1
-------------------------------------------------------
Player 4 (Bot):
[GD] [G0] [B4] [BD] [RD] [GR] [Y9]
Discarded [RD]
=======================================================
Turn 63:
Discard Pile: [RD]  Current Color: Red    Draw Pile: 1
-------------------------------------------------------
Player 5 (Bot):
Player 5 (Bot) drawn 1 card(s).
Turn skipped!
=======================================================
Turn 64:
Discard Pile: [RD]  Current Color: Red    Draw Pile: 0
-------------------------------------------------------
Player 1 (Bot):
[R3] [B0] [R5] [RR] [YD] [BR] [B1]
Discarded [R3]
=======================================================
Turn 65:
Discard Pile: [R3]  Current Color: Red    Draw Pile: 0
-------------------------------------------------------
Player 2 (Bot):
[Y2] [B3] [Y8]
Discarded [B3]
=======================================================
Turn 66:
Discard Pile: [B3]  Current Color: Blue   Draw Pile: 0
-------------------------------------------------------
Player 3 (Bot):
[B8] [B7] [Y1] [Y5] [BS] [R8] [Y0]
Discarded [B8]
=======================================================
Turn 67:
Discard Pile: [B8]  Current Color: Blue   Draw Pile: 0
-------------------------------------------------------
Player 4 (Bot):
[GD] [G0] [B4] [BD] [GR] [Y9]
Discarded [B4]
=======================================================
Turn 68:
Discard Pile: [B4]  Current Color: Blue   Draw Pile: 0
-------------------------------------------------------
Player 5 (Bot):
[G4] [B6] [G6] [G3] [BS] [YR]
Discarded [G4]
=======================================================
Turn 69:
Discard Pile: [G4]  Current Color: Green  Draw Pile: 0
-------------------------------------------------------
Player 1 (Bot):
[B0] [R5] [RR] [YD] [BR] [B1]
Turn passed!
=======================================================
Turn 70:
Discard Pile: [G4]  Current Color: Green  Draw Pile: 0
-------------------------------------------------------
Player 2 (Bot):
[Y2] [Y8]
Turn passed!
=======================================================
Turn 71:
Discard Pile: [G4]  Current Color: Green  Draw Pile: 0
```

```
------------------------------------------------------
Player 3 (Bot):
[B7] [Y1] [Y5] [BS] [R8] [Y0]
Turn passed!
========================================================
Turn 72:
Discard Pile: [G4]  Current Color: Green   Draw Pile: 0
------------------------------------------------------
Player 4 (Bot):
[GD] [G0] [BD] [GR] [Y9]
Discarded [GD]
========================================================
Turn 73:
Discard Pile: [GD]  Current Color: Green   Draw Pile: 0
------------------------------------------------------
Player 5 (Bot):
No more cards on draw pile!
Turn skipped!
========================================================
Turn 74:
Discard Pile: [GD]  Current Color: Green   Draw Pile: 0
------------------------------------------------------
Player 1 (Bot):
[B0] [R5] [RR] [YD] [BR] [B1]
Discarded [YD]
========================================================
Turn 75:
Discard Pile: [YD]  Current Color: Yellow  Draw Pile: 0
------------------------------------------------------
Player 2 (Bot):
No more cards on draw pile!
Turn skipped!
========================================================
Turn 76:
Discard Pile: [YD]  Current Color: Yellow  Draw Pile: 0
------------------------------------------------------
Player 3 (Bot):
[B7] [Y1] [Y5] [BS] [R8] [Y0]
Discarded [Y1]
========================================================
Turn 77:
Discard Pile: [Y1]  Current Color: Yellow  Draw Pile: 0
------------------------------------------------------
Player 4 (Bot):
[G0] [BD] [GR] [Y9]
Discarded [Y9]
========================================================
Turn 78:
Discard Pile: [Y9]  Current Color: Yellow  Draw Pile: 0
------------------------------------------------------
Player 5 (Bot):
[B6] [G6] [G3] [BS] [YR]
Discarded [YR]
========================================================
Turn 79:
Discard Pile: [YR]  Current Color: Yellow  Draw Pile: 0
------------------------------------------------------
Player 4 (Bot):
[G0] [BD] [GR]
Discarded [GR]
========================================================
Turn 80:
Discard Pile: [GR]  Current Color: Green   Draw Pile: 0
------------------------------------------------------
Player 5 (Bot):
[B6] [G6] [G3] [BS]
```

Discarded [G6]
===
Turn 81:
Discard Pile: [G6] Current Color: Green   Draw Pile: 0

Player 1 (Bot):
[B0] [R5] [RR] [BR] [B1]
Turn passed!
===
Turn 82:
Discard Pile: [G6] Current Color: Green   Draw Pile: 0

Player 2 (Bot):
[Y2] [Y8]
Turn passed!
===
Turn 83:
Discard Pile: [G6] Current Color: Green   Draw Pile: 0

Player 3 (Bot):
[B7] [Y5] [BS] [R8] [Y0]
Turn passed!
===
Turn 84:
Discard Pile: [G6] Current Color: Green   Draw Pile: 0

Player 4 (Bot):
[G0] [BD]
Discarded [G0]
===
Turn 85:
Discard Pile: [G0] Current Color: Green   Draw Pile: 0

Player 5 (Bot):
[B6] [G3] [BS]
Discarded [G3]
===
Turn 86:
Discard Pile: [G3] Current Color: Green   Draw Pile: 0

Player 1 (Bot):
[B0] [R5] [RR] [BR] [B1]
Turn passed!
===
Turn 87:
Discard Pile: [G3] Current Color: Green   Draw Pile: 0

Player 2 (Bot):
[Y2] [Y8]
Turn passed!
===
Turn 88:
Discard Pile: [G3] Current Color: Green   Draw Pile: 0

Player 3 (Bot):
[B7] [Y5] [BS] [R8] [Y0]
Turn passed!
===
Turn 89:
Discard Pile: [G3] Current Color: Green   Draw Pile: 0

Player 4 (Bot):
[BD]
Turn passed!
===
Turn 90:

Discard Pile: [G3] Current Color: Green   Draw Pile: 0

Player 5 (Bot):
[B6] [BS]
Turn passed!

****
Game Over!
****

Player 1 (Bot) owes   46 point(s): [B0] [R5] [RR] [BR] [B1]
Player 2 (Bot) owes   10 point(s): [Y2] [Y8]
Player 3 (Bot) owes   40 point(s): [B7] [Y5] [BS] [R8] [Y0]
Player 4 (Bot) owes   20 point(s): [BD]
Player 5 (Bot) owes   26 point(s): [B6] [BS]
The winner is Player 2 (Bot)!