j2meæ¸¸æˆæ•™ç¨‹(4)æŒ‰é”®äº‹ä»¶çš„å¤„ç†

æŠ•ç¨¿ï¼š ä¸€æ»´è”šè“•è‰²
2007-02-22
æœ€è¿‘æ›´æ–° 2008-09-10

æŽ¥ä¸‹æ¥è¦è¯´çš„æ˜¯ï¼š

æŒ‰é”®äº‹ä»¶çš„å¤„ç†ã€‚

æ‰€è°“æŒ‰é”®å¤„ç†ï¼Œå°±æ˜¯åœ¨æ¸¸æˆä¸ï¼ŒçŽ©å®¶æŒ‰äº†ä¸€ä¸ªé”®ã€‚

ä½ æŠŠå®ƒè®°å½•ä¸‹æ¥ï¼Œç„¶åŽåœ¨ç¨‹åºä¸å¤æ–ï¼ŒæŒ‰äº†ä»€ä¹ˆé”®ï¼Œè¦åšæˆä»€ä¹ˆç›¸åº”çš„åŠ¨ä½œã€‚

è¿™ä¸ªæŒ‰é”®å¤„ç†ç³»ç»Ÿä¹Ÿæ˜¯å¾ˆå†å·§ï¼Œå®žçŽ°çš„æ–¹å¼ä¸€æ ·ï¼Œç…§é¡¾çš„æ–¹é¢ä¹Ÿä¸€æ ·ã€‚

æˆ‘çŽ°åœ¨å•ªèƒ½è¯´äº›ç®€å•çš„ä¾‹åã€‚

ä¸€ä¸ªç®€å•çš„é”®ç›˜å¤„ç†ç³»ç»Ÿï¼Œå¯èƒ½ä¼šç»™è¿‡å¾ˆé•¿æœŸçš„å®Œå–„æ‰èƒ½å˜å¾—æˆç†Ÿã€‚

å› ä¸ºè¿™ä¸ªä¸œè¥¿å®žçŽ°èµ·æ¥å¾ˆå¤æ‚ã€‚ï¼ˆå¯æˆ‘æ¥è¯´^^ï¼‰

åœ¨Game.javaä¸æ·»åŠ å¦‚ä¸‹ä»£ç ï¼š

```
public void keyPressed(int keyCode) {
    //ç³»ç»Ÿäº‹ä»¶ï¼Œå½“é”®ç›˜è¢«æŒ‰ä¸‹ï¼Œç³»ç»Ÿä¼šè°ƒç”¨è¿™ä¸ªæ–¹æ³•ï¼Œå¹¶æŠŠä½ æŒ‰å¾—é”®å€¼keyCode
    // æ³¨æ„ï¼Œè¿™ä¸ª keyCodeé”®å€¼ä¸æ˜¯æ•°å€¼ï¼Œå°±æ˜¯è¯´ä½ æŒ‰number1ï¼Œä¸ä¸€å®šæ˜¯1ã€‚åœ¨æ‰‹æœº
    //ä¸åŒçš„æ‰‹æœºï¼ŒkeyCodeå¯èƒ½ä¸ç›¸åŒã€‚æ¨¡æ‹Ÿå™¨çš„keyCodeå’ŒçœŸå®žæ‰‹æœºçš„ä¹Ÿå¯èƒ½ä¸ç›¸åŒ
}
public void keyReleased(int keyCode) {
    //åŒä¸Šï¼Œå½“ä¸€ä¸ªé”®è¢«æ¾å¼€ï¼Œç³»ç»Ÿä¼šè°ƒç”¨è¿™ä¸ªæ–¹æ³•ã€‚
}
public void keyRepeated(int keyCode) {
   //åŒä¸Šï¼Œå½“ä¸€ä¸ªé”®è¢«æŒ•ç»æŒ‰ç•€ï¼Œç³»ç»Ÿä¼šè°ƒç”¨è¿™ä¸ªæ–¹æ³•ã€‚
   //å¤§å¤šæ•°æ‰‹æœºä¸æ”¯æŒè¿™ä¸ªæ–¹æ³•ï¼Œå••è€Œæ˜¯æŒ•keyPressedæ–¹æ³•ã€‚
   //å°±æ˜¯è¯´ï¼Œå¦‚æžœä½ ä¸€ç›´æŒ‰ç•€æŸ•ä¸ªé”®ï¼ŒkeyPressedæ–¹æ³•ä¼šè¢«æŒ•ç»è°ƒç”¨ï¼Œè€Œä¸•æ˜¯è¿™ä¸ªæ
}
```

æ‰€ä»¥æˆ‘ä»¬å°±åªç•™

```
public void keyPressed(int keyCode) {
}
public void keyReleased(int keyCode) {
}
```

è¿™ä¸¤ä¸ªæ–¹æ³•å°±å¤Ÿäº†ã€‚ä¸€ä¸ªå¥½çš„è®¾è®¡å®Œå…¨å•¯ä»¥ç”¨è¿™ä¸¤ä¸ªæ–¹æ³•æ»¡è¶³æ‰€æœ‰éœ€è¦•ã€‚

åœ¨ä¸Šæ¬¡çš„Game.javaä¸-ï¼Œç¬¬äºŒä¸ªçŠ¶æ€•æ˜¯è¿™æ ·ï¼š

```
case 2:
    ourGraphics.setColor(0);
    ourGraphics.fillRect(0, 0, 128, 128);
    ourGraphics.setColor(0xffffff);
    ourGraphics.drawString("Fuck Man! It's New Game!", 128 >> 1, 128 >> 1, Graphics.TOP | Graphics.HCENTER);

// æˆ‘ä»¬åœ¨è¿™é‡Œæ·»ä¸Šé”®ç›˜å¤„ç•†ä»¶ï¼š
/**
if (keyValue == NUM6) {
    gameState = 3; // å¦‚æžœæŒ‰äº†6é”®,å°±è·‘åˆ°çŠ¶æ€•3é‡Œé•¢.
}
*/
break;
```

ç„¶å•Žæˆ‘ä»¬å†•æ·»ä¸€ä¸ªçŠ¶æ€•3,

```
case 3:
    ourGraphics.setColor(0);
    ourGraphics.fillRect(0, 0, 128, 128);
    ourGraphics.setColor(0xffffff);
    ourGraphics.drawString("Haha, dao 3 le!", 128 >> 1, 128 >> 1, Graphics.TOP | Graphics.HCENTER);

// æˆ‘ä»¬åœ¨è¿™é‡Œæ·»ä¸Šé”®ç›˜å¤„ç•†äº‹ä»¶ï¼š
/**
if (keyValue == NUM4) {
    gameState = 2; // å¦‚æžœæŒ‰äº†4é”®,å•ˆè·‘å›žçŠ¶æ€•2é‡Œé•¢.
}
*/
break;
```

ä¸Šé•¢çš„ä»£ç •å…ˆå°±é‚£æ ·æŠŠæ³¨é‡ŠåŠ ç•€, /** */

å®šä¹‰ä¸€ä¸ªå•˜é‡•,

int keyValue;

//ç„¶å•Žåœ¨è¿™é‡Œé•¢

public void keyPressed(int keyCode) {

//åŠ ä¸Šä¸€å•¥:

System.out.println("The keycode of the key you pressed is " + keyCode);

//è¿™æ ·ä½ æ¯•æŒ‰ä¸€ä¸ªé”®,æŽ§åˆ¶å•°å°±ä¼šæŠŠè¿™ä¸ªé”®å¯¹åº”çš„é”®å€¼æ‰“å•°å‡ºæ¥. //æŠŠè¿™ä¸ªé”®å€¼

keyValue = keyCode;

}

çŽ°åœ¨å•¯ä»¥è¯•è¯•è¿™ä¸ªç¨‹åº•ï¼ŒæŒ‰ä¸€ä¸‹4ï¼Œæˆ–6ï¼Œçœ‹çœ‹ä»–ä»¬çš„é”®å€¼æ˜¯å¤šå°‘ï¼Œç„¶å•Žå®šä¹‰ä»–

final static int NUM4 = 52; //åœ¨è¿™é‡Œå†™æŒ‰4æ—¶å¾—åˆ°çš„é”®å€¼

final static int NUM6 = 54; //åœ¨è¿™é‡Œå†™æŒ‰6æ—¶å¾—åˆ°çš„é”®å€¼

//final å°±æ„•å'³ä¸•å•¯æ”¹å•˜ã€,static finalå°±æ˜¯ä¸€ä¸ªå¸¸é‡•ã€,

ä¸€èˆ¬æ¥è¯´ï¼Œè¿™äº›é”®å€¼éƒ½äº‹å…ˆå®šä¹‰å¥½ã€,æ‰‹æœºä¸•å•Œï¼Œå•ªéœ€è¦æ”¹å•˜è¿™äº›å¸¸é‡•çš„å€¼å°±å•¯

çŽ°åœ¨å•¯ä»¥æŠŠcase 2 å'Œ case 3çš„æ³¨é‡ŠåŽ»æŽ‰ã€,è¿•è¡Œç¨‹åº•ï¼š

è¿™æ · åœ¨åˆ°è¾¾çŠ¶æ€•2ä»¥å•Žï¼ŒæŒ‰6é”®ï¼Œæ¸¸æˆ•å°±ä¼šè·'åˆ°çŠ¶æ€•3ã€,

ç„¶å•Žå†•æŒ‰4ï¼Œå°±ä¼šè¿”å›žåˆ°çŠ¶æ€•2ã€,

ä¸ºä»†é•¿å…•keyValueè¿™ä¸ªå€¼ä¸€ç›´ä¿•å˜,åœ¨

case 2çš„é‡Œé•¢åŠ ä¸Š:

/**

if (keyValue == NUM6) {

gameState = 3; // å¦‚æžœæŒ‰äº†6é”®,å°±è·'åˆ°çŠ¶æ€•3é‡Œé•¢.

keyValue = -1; //éš•ä¾¿æ•žä¸ªè´Ÿæ•°ç»™å®ƒ,å…•å¾—è¿™ä¸ªå€¼åœ¨å…¶å®ƒçŠ¶æ€•è¿˜å•¯èƒ½èµ·ä½œç"¨.æ„•æ€•å°±æ˜

}

*/

ä¸€ä¸ªç®€å••çš„é”®ç›˜å¤„ç†çš„ä¾‹åå°±å®Œæˆ•äº†ã€,ï¼šï¼‰

ä½†æ˜¯è¿™ä¸ªé”®ç›˜å¤„ç†çš„æ–¹æ³•é•žå¸¸ä¸•å®Œå–„ã€,

case 2è¿•è¡Œçš„æ—¶å€™ï¼Œæžœå¾ˆå¿«çš„æŒ‰6å†•æŒ‰4,

è¿™æ—¶keyValueå•˜æ˜•NUM4ï¼Œç„¶å•Žåœ¨ case

2çš„å˜¤æ–-ä¸-ï¼Œå°±å˜¤æ–-ä¸•å˜°ä½ æŒ‰è¿‡6ã€‚

çœ‹æ•¥çŽ°åœ¨çš„é—®é¢˜å°±æ˜¯ç”¨ä¸€ä¸ªkeyValueå•˜é‡•å-˜å¨æŒ‰è¿‡çš„é®ï¼Œå•ªèƒ½å-˜å¨ä¸€ä¸ªã€‚

æœ‰äº›åŠžæ³•ï¼š

å•‡è®¾ keyValue ç”¨2è¿›å˜¶è¡¨ç¤ºï¼Œä»–å°±æœ‰å¤šä½•å•¯ä»¥å˜©ç”¨ã€‚

int keyValue = 0; // 0000 00000 0000.....

å•‡è®¾ç¬¬å››ä½•è¡¨ç¤ºé”®4ï¼Œç¬¬å…-ä½•è¡¨ç¤ºæŒ‰é”®6.....ä¾•æ-¤ç±»æŽ¨ã€‚

é‚£ä¹ˆå¦‚æžœæŒ‰äº† NUM6, å°±æŠŠ

keyValueçš„ç¬¬6ä½•è¡¨ç¤ºæ˜1ï¼Œè¡¨ç¤ºä¸‹ã€‚

é‚£ä¹ˆå¦‚æžœæŒ‰äº† NUM4, å°±æŠŠ

keyValueçš„ç¬¬4ä½•è¡¨ç¤ºæ˜1ï¼Œè¡¨ç¤ºä¸‹ã€‚

å•ªè¦•å-˜å,¨çš„ä½•ç½®ä¸•å•Œï¼Œé‚£ä¹ˆä¸€æ´´æ•°å°±å•¯ä»¥å•Œæ—¶å-˜å,¨å¤šä¸ªæŒ‰é®çš„çŠ¶æ€•äº†ã€‚

çŽ°åœ¨å®šä¹‰ä¸¤ä¸ªå•˜é‡•ï¼Œè¡¨ç¤ºæŸä¸ªé®åœ¨è¿™ä¸ªæ´´å½¢ä¸-çš„ä½•ç½®ï¼š

static final int GAME_NUM4 = 1 << 4; // æ„•æ€•æ˜¯äºŒè¿›å¶çš„10000,

æŠŠ1å•‘å•³ç§»4ä½•ã€‚

static final int GAME_NUM6 = 1 << 6; // æ„•æ€•æ˜¯äºŒè¿›å¶çš„1000000ï¼Œ

æŠŠ1å•‘å•³ç§»6ä½•ã€‚

ä¿®æ”¹è¿™ä¸ªå‡½æ•°ã€‚

```
public void keyPressed(int keyCode) {
    switch (keyCode) {
    case NUM4:
        keyValue |= GAME_NUM4;  // å¦‚æžœäºŒè¿›å¶keyValueçš„å€¼æ˜¯ 0ï¼Œé‚£ä¹ˆæ––ï¼‰æ•–äº†ä¹‹å•Žï¼Œkey = 10
        // å¦‚æžœ keyValue = 00100000,é‚£ä¹ˆæ––ï¼‰æ•–äº†ä¹‹å•Žï¼Œkey = 00110000.å°±æ˜¯å•³æ•°ç¬¬5ä½•æ”¹å•˜äº†ï¼
        break;
    case NUM6:
        keyValue |= GAME_NUM6;
        break;
```

```
        // case ....å®Œæ•´çš„æ¸¸æˆ•ä»£ç •é‡Œï¼Œå•Žé•¢è¿˜æœ‰å¾ˆå¤šcaseï¼Œè¦•æŠŠæ‰€æœ‰æ‰‹æœºä¸Šçš„æŒ‰é”
    }
}


å-˜å‚¨æŒ‰é”®å€¼å¾—æ–¹æ³•å•˜äº†ï¼Œåˆ¤æ–-çš„æ–¹æ³•ä¹Ÿè¦•å•˜ã€‚
ä¿®æ”¹case 2ä¸-çš„

if (keyValue == NUM6) {
    gameState = 3;
    keyValue = -1;
}

å•˜æˆ•
if ((keyValue & GAME_NUM6) != 0 ) { //å¦‚æžœæŒ‰äº†6é”®é‚£ä¸€ä½•æ˜¯1ï¼Œå°±è¡¨ç¤º6è¢«æŒ‰ä¸‹äº†ã€‚
    // 0 & 1 = 0, 1 & 1 = 1
    // é‚£ä¹ˆkeyValueçš„æ¯•ä¸€ä½•å’ŒGAME_NUM6çš„æ¯•ä¸€ä½• &
    // 1111 1010 keyValue ï¼ˆéš•ä¾¿å†™çš„å€¼ï¼‰
    // 0100 0000 GAME_NUM6
    // è¿™æ ·çœ‹æ•¥é‚£ä¹ˆkeyValue & GAME_NUM6çš„å€¼å°±å†³å®šåœ¨ç¬¬7ä½•ã€‚å…¶ä»–ä½•&çš„ç»“æžœè‚¯å®šæ˜¯0ã€‚
    // å¦‚æžœkeyValueçš„ç¬¬7ä½•æ˜¯1,å°±æ„•å‘³ç•€keyValue & GAME_NUM6 != 0.
    gameState = 3;


    keyValue &= ~GAME_NUM6; // ä½¿ç”¨å®Œä¹‹å•Žï¼ŒæŠŠè¿™ä¸€ä¸ªæŒ‰é”®ä½•æ¸…ç©º,å…¶ä»–ä½•ä¿•ç•™ã€‚
    // ~ç¬¦å•·çš„æ„•æ€•æ˜¯å•–å••. GAME_NUM6 çš„äºŒè¿›åˆ¶æ˜¯ 0100 0000ï¼Œ å•–å••ä¹‹å•Žç-‰äºŽ1011 1111
    // å†•è·ŸkeyValue &,å°±ç›¸å½“äºŽå…¶ä»–ä¸ºä¿•æŒ•ä¸•å•˜ï¼Œç¬¬7ä½•å•˜æˆ•0äº†ã€‚
}


å•¯ä»¥è¯•è¯•çœ‹äº†ï¼ŒçŽ°åœ¨çš„è¯•ï¼Œå¾ˆå¿«çš„æŒ‰6å†•æŒ‰4ï¼Œ6ä»•ç„¶æ˜¯èµ·ä½œç”¨çš„ã€‚
ä¸€èˆ¬åœ¨ keyReleasedæ–¹æ³•ä¸-ï¼Œä¹Ÿè¦•æŠŠé‡Šæ”¾çš„é”®ä½•ç»™æ¸…ç©ºï¼Œä¹Ÿç”¨ä¸Šé•¢çš„æ–¹æ³•ã€‚


æ•©ï¼Œæˆ‘ä¸¾çš„ä¾‹å-•ä¼¼ä¹Žä¸•æ˜¯å¾ˆå¥½ã€‚æ²¡èƒ½è¡¨çŽ°keyç³»ç»Ÿçš„å¤„ç•†ã€‚
```

æŒ‰é”®å•¯èƒ½éš•æ—¶å•‘ç”Ÿï¼Œæ‰€ä»¥keyValueçš„å€¼å•¯èƒ½ä¼šéš•æ—¶æ”¹å•˜ã€,è¿™æ ·çš„è¯•ï¼Œç›´æŽ¥ç”¨keyVa

çŽ°åœ¨çš„è§£å†³åŠžæ³•æ˜¯ï¼š

ä½¿ç”¨keyValueæ•¥è®°å½•æŒ‰é”®çš„çŠ¶æ€•ã€,

æŒ‰ä¸‹-->æ‰“å¼€ç›¸åº”çš„ä½•ï¼Œ é‡Šæ”¾-->æ¸…ç©ºç›¸åº”çš„ä½•

ç„¶å•Žå†•æ•žä¸€ä¸ªå•˜é‡•ä¸“é—¨è¿›è¡Œåˆ¤æ–-ã€,

å•‡è®¾è¿™ä¸ªå•˜é‡•æ˜¯frameKey.

åœ¨æ¯•ä¸€æ¡¢å¼€å§‹æ—¶ï¼ŒframeKey = keyValue.

é,£ä¹ˆå¯¹è¿™ä¸€æ¡¢æ•¥è¯´ï¼ŒframeKeyæ˜¯ä¸•å•˜çš„ï¼•ä¸•ç®¡ä½ æ€Žä¹ˆæŒ‰é”®ï¼Œå•˜å¾—éƒ½æ˜¯keyValue.

åœ¨è¿™ä¸€æ¡¢é‡Œï¼Œæˆ‘ä»¬å§‹ç»ˆç”¨frameKeyæ•¥è¿›è¡ŒæŒ‰é”®çš„åˆ¤æ–-ã€,å› æ-¤ï¼ŒæŒ‰é”®çš„çŠ¶æ€•å•˜å¾—ç

ç„¶å•Žåœ¨ä¸‹ä¸€æ¡¢ï¼Œå•ˆæŠŠå•˜è¿‡çš„keyValueèµ‹ç»™frameKeyï¼Œå†•ä½¿ç”¨frameKeyè¿›è¡Œåˆ¤æ–-ã€,

å‘µå‘µã€,è¿™æ ·çš„åˆ¤æ–-ä¹Ÿå•¯èƒ½æ¼•æŽ‰æŸ•äº›æŒ‰é”®ã€,

å…¶å®žæˆ‘å¾ˆé•¿æ—¶é—´éƒ½æ²¡æœ‰åŽ»è®¤çœŸç ”ç©¶ä»£ç •ï¼ŒåŽ»ç•†è§£ä»£ç •äº†ã€,

æˆ•å¤©å¿™äºŽæ”¹bugï¼Œå¯¹æ¸¸æˆ•å¼€å•‘æœ¬èº«çš„çŸ¥è¯†ç®€ç›´èœ•å•˜ä¸º0äº†ã€,

å•ªæœ‰ä»¥å•ŽåŠ¨æ‰‹å•šã€,å¦,æžœç¢°åˆ°å…·ä½“çš„ä¸•èƒ½æ»¡è¶³çš„éœ€è¦•ï¼Œå°±å†•åŽ»ç ”ç©¶ã€,

å°±è®²è¿™ä¹ˆå¤šã€,