

# Huaminton

主要实现功能, 羽毛球计分, 提示发球人位置, 纪录比赛结果, 蓝牙控制器.

## Descriptions

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功能描述:

- 支持设备
  - iPhone, iPad, Android, Pad
- 赛制
  - 类型
  - 局数
  - 分制
- 记分
  - 得分
  - 撤销上一步操作
  - 重置
- 发球人
  - 初始随机一名队员发球
  - 奇数,偶数分别在左、右场区发球
  - 得分者发球
- 比赛历史纪录
  - 时间, 赛制, 参赛人, 比分, 时长
- 系统功能
  - 开始, 暂停, 重置, 屏幕是否常亮, 退出
- 国际化与本地化
  - 简体中文, 英语, 日语, 韩语
- Remote Control
  - 添加控制器远程触发计分动作:至少有两种输出:A得分,B得分, 撤销等动作函数
  - 蓝牙连接界面,

## 1. 输入

类型选择 : 单人, 双人  
局数选择 : 1, 3, 5, 7  
分制选择 : 11, 21, 31  
  
队员设置 : 名字, 颜色, 照片

## 2. 动作

比赛 :  
    得分 : 得分  
    撤销 : 回到上一个状态  
    重置 : 比分重置  
  
系统 :  
    开始 : 根据输入参数初始化比赛, 开始计时  
    暂停 : 暂停计时  
    重置 : 重置比分  
    退出 : 放弃此次比赛  
  
    屏幕常亮 :  
    选择语言 :  
    帮助视频 :  
    Version, Rate Me, About Me, Feedback, Official Website  
  
    InterfaceOrientation : portrait  
  
    iCloud View History :

## 3. 数据结构

```
-----  
enum HUAMINTON_TYPE{  
    HUAMINTON_TYPE_SINGLE,  
    HUAMINTON_TYPE_DOUBLE,  
};  
enum HUAMINTON_ROUNDS{  
    HUAMINTON_ROUNDS_ONE,  
    HUAMINTON_ROUNDS_THREE,  
    HUAMINTON_ROUNDS_FIVE,  
    HUAMINTON_ROUNDS_SEVEN,  
    HUAMINTON_ROUNDS_COUNTS,  
};
```

```

enum HUAMINTON_POINTS{
    HUAMINTON_POINTS_ELEVEN,
    HUAMINTON_POINTS_TWENTYONE,
    HUAMINTON_POINTS_THIRTYONE,
    HUAMINTON_POINTS_COUNTS,
};

enum HUAMINTON_POSITIONS{
    HUAMINTON_POSITIONS_HOMEA,
    HUAMINTON_POSITIONS_HOMEB,
    HUAMINTON_POSITIONS_AWAYB,
    HUAMINTON_POSITIONS_AWAYA,
};

#define HOMEA_NAME @"HomeA"
#define HOMEB_NAME @"HomeB"
#define AWAYB_NAME @"AwayB"
#define AWAYA_NAME @"AwayA"

BadmintonGame
    type, rounds, points, players

    roundIndex, pointIndex
    homeSet, awaySet, match
    server, positions
    serverHistory, positionsHistory

    isHomeGameWinner, isHomeRoundWinner
    isNewRound

    -(void)initHuamintonGame;

    -(void)homeGetOnePoint;
    -(void)awayGetOnePoint;

    -(Boolean)isRoundEnd;
    -(Boolean)isGameEnd;

    -(void)nextRound;

    -(void)saveData;
-----
BadmintonMatch
    startDate, endDate

    maxPoint, gamePoint
    homePoint, awayPoint

```

```
homePointHistory, awayPointHistory
```

```
-initWithamintonMatch:points;
```

```
-(void)homeGetOnePoint;
```

```
-(void)awayGetOnePoint;
```

```
-(void)addPointToHistory;
```

```
-(void)deletePointFromHistory;
```

```
-(void)resetPoint;
```

```
-----  
BadmintonPlayer
```

```
name, color, image
```

```
-initWithName:name :color;
```

#### 4. 逻辑

-----

#### 计分规则

1. 每球直接得分，先到21分者获胜
2. 如果双方打到20平手，连续得2分者获胜
3. 否则先取得30分者获胜
4. 一局的胜方在下一局首先发球

#### 发球规则

1. 最开始发球随机队伍在右方发球区发球,之后上一局胜利者在本区右方发球区发球
2. 发球方的得分为偶数时，在右方发球区内准备发球或接发球;奇数时为左方发球区
3. 得分后获得发球权，当连续得分的时候，球员在自己的两个发球区内交替发球

#### 保存规则

1. 如果一局比赛结束，保存结果
2. 如果一场比赛结束，保存结果
3. 没有胜利者，放弃结果

#### 历史纪录

##### 正向

1. 本轮 pointIndex
2. 算分 match - toHistory
3. 确定发球者 server
4. 确定位置 positions
5. server and postions - toHistory
6. 下一轮 pointIndex++

##### 反向

1. 如果有上一轮 pointIndex--
2. 算分 match - fromHistory
3. 确定发球者 server
4. 确定位置 positions
5. server and postions - fromHistory

-----

## View

mainView

-----				
	-----		-----	
	Type		S   D	
	-----		-----	
	-----		-----	

	Rounds	Points
	1	11
	3	21
	5	31
	HomeA	AwayA
	HomeB	AwayB
	Start	
	Setting	History

Label : Type, Rounds, Points  
Segment : S|D  
Picker : 1-3-5-7, 11-21-31  
Button : HomeA, HomeB, AwayA, AwayB, Start, Setting, Histroy

View Background Color : (236,236,236)

Label Text Color : (77,77,77)  
Font : System Heavy 24.0  
Alignmnt : Center  
Label Background Color : clear color  
Label Tint Color : clear color

Segment Background Color : clear color  
Segment Tint Color : (61,74,93)

Picker Background Color : clear color  
Font : bold system font 40  
Picker Text Color : (77,77,77)

Button Text Color :

Default : Dark Gray Color

Disable : Light Text Color

Font System Medium 20

Button Shadow Color : clear color

Button Background Color : clear color

Button Tint Color : clear color

Start Button

Background Color : (230,15,40)

Text Color : white color

Shadow Color : clear color

Tint Color : clear color

Font System Black 40

Setting & History Buttons

Background Color : clear color

Text Color : (77,77,77)

Shadow Color : clear color

Tint Color : clear color

Font System thin 30

Constraints:

too lazy to write them down

-----

| A1 B1 |

| A2 B2 |

-----

-----

-----
name
-----
-----
color
-----
-----
image
-----
-----

```
| |           done           | |
| ----- |
| ----- |
```

Name Text Field

Font System Bold 24

Text Color : Dark Gray Color

Shadow Color : clear color

Background Color : white color

Tint Color : clear color

Done Button

Background Color :

Text Color : white color

Shadow Color : clear color

Background Color : white color

```
-----
|           Start           |
| ----- |
```

recordView

```
-----
| ----- |
| |           Button           | |
| | ----- | ----- | |
| ||   Label   | |   Label   || |
| ||           | |           || |
| ||           | |           || |
| ||           | |           || |
| ||           | |           || |
| ||           | |           || |
| | ----- | ----- | |
| ----- |
| ----- |
| |   F   | | S | |   E   | |
| ----- |
| ----- |
| | ----- | ----- | |
| ||           | |           || |
| ||           | |           || |
| ||           | |           || |
| ||           | |           || |
| ||   Label   | |   Label   || |
| | ----- | ----- | |
```



```
||      Button      ||
| ----- |
|
```

Button:

Background : transparent

M : Menu ActionSheet : Undo, Reset

S : Score

E : Exit

```
-----
| Setting |
```

settingView

```
-----
|
| ----- |
| |      Logo      | |
| |               | |
| | ----- |
|
| ----- |
| |      version   | |
| | ----- |
| | ----- |
| |      About     | |
| | ----- |
| | ----- |
| |      Rate Me   | |
| | ----- |
| | ----- |
| |      Feed Back  | |
| | ----- |
|
| | Offical Website | |
|
| ----- |
```

```
-----
| History |
```

historyView



);

```
[self.db executeUpdate:createTablegames];
```

SINGLE:

```
ger:awayset[];
```

DOUBLE:

```
er:awayset[];
```

Update result:

```
erWithInteger:homeset],[NSNumber numberWithInt:awayset],gamename];
```

```
-saveGameInitData
    // type, rounds, points, players
```

```
-saveGameResultData
    // homeset, awayset
```

```
--- --- --- --- ---
```

```
roundname = gamename + roundIndex(1,2,3,4,5,6,7);
```

```
CREATE TABLE rounds (
    id            INTEGER PRIMARY KEY      AUTOINCREMENT,
    roundname     TEXT,
    roundtime     TEXT,
    pointnum      INTEGER DEFAULT 0,
    homepoint     INTEGER DEFAULT 0,
    awaypoint     INTEGER DEFAULT 0,
    h0            INTEGER DEFAULT -1,
    h1            INTEGER DEFAULT -1,
    h2            INTEGER DEFAULT -1,
    h3            INTEGER DEFAULT -1,
    h4            INTEGER DEFAULT -1,
    h5            INTEGER DEFAULT -1,
    h6            INTEGER DEFAULT -1,
    h7            INTEGER DEFAULT -1,
    h8            INTEGER DEFAULT -1,
    h9            INTEGER DEFAULT -1,
    h10           INTEGER DEFAULT -1,
    h11           INTEGER DEFAULT -1,
    h12           INTEGER DEFAULT -1,
    h13           INTEGER DEFAULT -1,
    h14           INTEGER DEFAULT -1,
    h15           INTEGER DEFAULT -1,
    h16           INTEGER DEFAULT -1,
    h17           INTEGER DEFAULT -1,
    h18           INTEGER DEFAULT -1,
    h19           INTEGER DEFAULT -1,
    h20           INTEGER DEFAULT -1,
    h21           INTEGER DEFAULT -1,
    h22           INTEGER DEFAULT -1,
    h23           INTEGER DEFAULT -1,
    h24           INTEGER DEFAULT -1,
    h25           INTEGER DEFAULT -1,
    h26           INTEGER DEFAULT -1,
```

h27	INTEGER	DEFAULT	-1,
h28	INTEGER	DEFAULT	-1,
h29	INTEGER	DEFAULT	-1,
h30	INTEGER	DEFAULT	-1,
h31	INTEGER	DEFAULT	-1,
h32	INTEGER	DEFAULT	-1,
h33	INTEGER	DEFAULT	-1,
h34	INTEGER	DEFAULT	-1,
h35	INTEGER	DEFAULT	-1,
h36	INTEGER	DEFAULT	-1,
h37	INTEGER	DEFAULT	-1,
h38	INTEGER	DEFAULT	-1,
h39	INTEGER	DEFAULT	-1,
h40	INTEGER	DEFAULT	-1,
h41	INTEGER	DEFAULT	-1,
h42	INTEGER	DEFAULT	-1,
h43	INTEGER	DEFAULT	-1,
h44	INTEGER	DEFAULT	-1,
h45	INTEGER	DEFAULT	-1,
h46	INTEGER	DEFAULT	-1,
h47	INTEGER	DEFAULT	-1,
h48	INTEGER	DEFAULT	-1,
h49	INTEGER	DEFAULT	-1,
h50	INTEGER	DEFAULT	-1,
h51	INTEGER	DEFAULT	-1,
h52	INTEGER	DEFAULT	-1,
h53	INTEGER	DEFAULT	-1,
h54	INTEGER	DEFAULT	-1,
h55	INTEGER	DEFAULT	-1,
h56	INTEGER	DEFAULT	-1,
h57	INTEGER	DEFAULT	-1,
h58	INTEGER	DEFAULT	-1,
h59	INTEGER	DEFAULT	-1,
h60	INTEGER	DEFAULT	-1,
h61	INTEGER	DEFAULT	-1,
h62	INTEGER	DEFAULT	-1,
h63	INTEGER	DEFAULT	-1,
h64	INTEGER	DEFAULT	-1,
h65	INTEGER	DEFAULT	-1,
h66	INTEGER	DEFAULT	-1,
h67	INTEGER	DEFAULT	-1,
h68	INTEGER	DEFAULT	-1,
h69	INTEGER	DEFAULT	-1,
h70	INTEGER	DEFAULT	-1,
h71	INTEGER	DEFAULT	-1,

h72	INTEGER	DEFAULT	-1,
h73	INTEGER	DEFAULT	-1,
h74	INTEGER	DEFAULT	-1,
h75	INTEGER	DEFAULT	-1,
h76	INTEGER	DEFAULT	-1,
h77	INTEGER	DEFAULT	-1,
h78	INTEGER	DEFAULT	-1,
h79	INTEGER	DEFAULT	-1,
h80	INTEGER	DEFAULT	-1,
a0	INTEGER	DEFAULT	-1,
a1	INTEGER	DEFAULT	-1,
a2	INTEGER	DEFAULT	-1,
a3	INTEGER	DEFAULT	-1,
a4	INTEGER	DEFAULT	-1,
a5	INTEGER	DEFAULT	-1,
a6	INTEGER	DEFAULT	-1,
a7	INTEGER	DEFAULT	-1,
a8	INTEGER	DEFAULT	-1,
a9	INTEGER	DEFAULT	-1,
a10	INTEGER	DEFAULT	-1,
a11	INTEGER	DEFAULT	-1,
a12	INTEGER	DEFAULT	-1,
a13	INTEGER	DEFAULT	-1,
a14	INTEGER	DEFAULT	-1,
a15	INTEGER	DEFAULT	-1,
a16	INTEGER	DEFAULT	-1,
a17	INTEGER	DEFAULT	-1,
a18	INTEGER	DEFAULT	-1,
a19	INTEGER	DEFAULT	-1,
a20	INTEGER	DEFAULT	-1,
a21	INTEGER	DEFAULT	-1,
a22	INTEGER	DEFAULT	-1,
a23	INTEGER	DEFAULT	-1,
a24	INTEGER	DEFAULT	-1,
a25	INTEGER	DEFAULT	-1,
a26	INTEGER	DEFAULT	-1,
a27	INTEGER	DEFAULT	-1,
a28	INTEGER	DEFAULT	-1,
a29	INTEGER	DEFAULT	-1,
a30	INTEGER	DEFAULT	-1,
a31	INTEGER	DEFAULT	-1,
a32	INTEGER	DEFAULT	-1,
a33	INTEGER	DEFAULT	-1,
a34	INTEGER	DEFAULT	-1,
a35	INTEGER	DEFAULT	-1,

a36	INTEGER	DEFAULT	-1,
a37	INTEGER	DEFAULT	-1,
a38	INTEGER	DEFAULT	-1,
a39	INTEGER	DEFAULT	-1,
a40	INTEGER	DEFAULT	-1,
a41	INTEGER	DEFAULT	-1,
a42	INTEGER	DEFAULT	-1,
a43	INTEGER	DEFAULT	-1,
a44	INTEGER	DEFAULT	-1,
a45	INTEGER	DEFAULT	-1,
a46	INTEGER	DEFAULT	-1,
a47	INTEGER	DEFAULT	-1,
a48	INTEGER	DEFAULT	-1,
a49	INTEGER	DEFAULT	-1,
a50	INTEGER	DEFAULT	-1,
a51	INTEGER	DEFAULT	-1,
a52	INTEGER	DEFAULT	-1,
a53	INTEGER	DEFAULT	-1,
a54	INTEGER	DEFAULT	-1,
a55	INTEGER	DEFAULT	-1,
a56	INTEGER	DEFAULT	-1,
a57	INTEGER	DEFAULT	-1,
a58	INTEGER	DEFAULT	-1,
a59	INTEGER	DEFAULT	-1,
a60	INTEGER	DEFAULT	-1,
a61	INTEGER	DEFAULT	-1,
a62	INTEGER	DEFAULT	-1,
a63	INTEGER	DEFAULT	-1,
a64	INTEGER	DEFAULT	-1,
a65	INTEGER	DEFAULT	-1,
a66	INTEGER	DEFAULT	-1,
a67	INTEGER	DEFAULT	-1,
a68	INTEGER	DEFAULT	-1,
a69	INTEGER	DEFAULT	-1,
a70	INTEGER	DEFAULT	-1,
a71	INTEGER	DEFAULT	-1,
a72	INTEGER	DEFAULT	-1,
a73	INTEGER	DEFAULT	-1,
a74	INTEGER	DEFAULT	-1,
a75	INTEGER	DEFAULT	-1,
a76	INTEGER	DEFAULT	-1,
a77	INTEGER	DEFAULT	-1,
a78	INTEGER	DEFAULT	-1,
a79	INTEGER	DEFAULT	-1,
a80	INTEGER	DEFAULT	-1

);

```
NSString *createTablerounds = @"CREATE TABLE rounds ( id INTEGER PRIMARY KEY AUTOINCRE  
MENT, roundname TEXT, roundtime TEXT, pointnum INTEGER DEFAULT 0, homepoint  
INTEGER DEFAULT 0, awaypoint INTEGER DEFAULT 0, h0 INTEGER DEFAULT -1, h1 INTEGER DE  
FAULT -1, h2 INTEGER DEFAULT -1, h3 INTEGER DEFAULT -1, h4 INTEGER DEFAULT -1, h5 IN  
TEGER DEFAULT -1, h6 INTEGER DEFAULT -1, h7 INTEGER DEFAULT -1, h8 INTEGER DEFAULT -  
1, h9 INTEGER DEFAULT -1, h10 INTEGER DEFAULT -1, h11 INTEGER DEFAULT -1, h12 INTEGE  
R DEFAULT -1, h13 INTEGER DEFAULT -1, h14 INTEGER DEFAULT -1, h15 INTEGER DEFAULT -1  
, h16 INTEGER DEFAULT -1, h17 INTEGER DEFAULT -1, h18 INTEGER DEFAULT -1, h19 INTEGE  
R DEFAULT -1, h20 INTEGER DEFAULT -1, h21 INTEGER DEFAULT -1, h22 INTEGER DEFAULT -1  
, h23 INTEGER DEFAULT -1, h24 INTEGER DEFAULT -1, h25 INTEGER DEFAULT -1, h26 INTEGE  
R DEFAULT -1, h27 INTEGER DEFAULT -1, h28 INTEGER DEFAULT -1, h29 INTEGER DEFAULT -1  
, h30 INTEGER DEFAULT -1, h31 INTEGER DEFAULT -1, h32 INTEGER DEFAULT -1, h33 INTEGE  
R DEFAULT -1, h34 INTEGER DEFAULT -1, h35 INTEGER DEFAULT -1, h36 INTEGER DEFAULT -1  
, h37 INTEGER DEFAULT -1, h38 INTEGER DEFAULT -1, h39 INTEGER DEFAULT -1, h40 INTEGE  
R DEFAULT -1, h41 INTEGER DEFAULT -1, h42 INTEGER DEFAULT -1, h43 INTEGER DEFAULT -1  
, h44 INTEGER DEFAULT -1, h45 INTEGER DEFAULT -1, h46 INTEGER DEFAULT -1, h47 INTEGE  
R DEFAULT -1, h48 INTEGER DEFAULT -1, h49 INTEGER DEFAULT -1, h50 INTEGER DEFAULT -1  
, h51 INTEGER DEFAULT -1, h52 INTEGER DEFAULT -1, h53 INTEGER DEFAULT -1, h54 INTEGE  
R DEFAULT -1, h55 INTEGER DEFAULT -1, h56 INTEGER DEFAULT -1, h57 INTEGER DEFAULT -1  
, h58 INTEGER DEFAULT -1, h59 INTEGER DEFAULT -1, h60 INTEGER DEFAULT -1, h61 INTEGE  
R DEFAULT -1, h62 INTEGER DEFAULT -1, h63 INTEGER DEFAULT -1, h64 INTEGER DEFAULT -1  
, h65 INTEGER DEFAULT -1, h66 INTEGER DEFAULT -1, h67 INTEGER DEFAULT -1, h68 INTEGE  
R DEFAULT -1, h69 INTEGER DEFAULT -1, h70 INTEGER DEFAULT -1, h71 INTEGER DEFAULT -1  
, h72 INTEGER DEFAULT -1, h73 INTEGER DEFAULT -1, h74 INTEGER DEFAULT -1, h75 INTEGE  
R DEFAULT -1, h76 INTEGER DEFAULT -1, h77 INTEGER DEFAULT -1, h78 INTEGER DEFAULT -1  
, h79 INTEGER DEFAULT -1, h80 INTEGER DEFAULT -1, a0 INTEGER DEFAULT -1, a1 INTEGER  
DEFAULT -1, a2 INTEGER DEFAULT -1, a3 INTEGER DEFAULT -1, a4 INTEGER DEFAULT -1, a5  
INTEGER DEFAULT -1, a6 INTEGER DEFAULT -1, a7 INTEGER DEFAULT -1, a8 INTEGER DEFAULT  
-1, a9 INTEGER DEFAULT -1, a10 INTEGER DEFAULT -1, a11 INTEGER DEFAULT -1, a12 INTE  
GER DEFAULT -1, a13 INTEGER DEFAULT -1, a14 INTEGER DEFAULT -1, a15 INTEGER DEFAULT  
-1, a16 INTEGER DEFAULT -1, a17 INTEGER DEFAULT -1, a18 INTEGER DEFAULT -1, a19 INTE  
GER DEFAULT -1, a20 INTEGER DEFAULT -1, a21 INTEGER DEFAULT -1, a22 INTEGER DEFAULT  
-1, a23 INTEGER DEFAULT -1, a24 INTEGER DEFAULT -1, a25 INTEGER DEFAULT -1, a26 INTE  
GER DEFAULT -1, a27 INTEGER DEFAULT -1, a28 INTEGER DEFAULT -1, a29 INTEGER DEFAULT  
-1, a30 INTEGER DEFAULT -1, a31 INTEGER DEFAULT -1, a32 INTEGER DEFAULT -1, a33 INTE  
GER DEFAULT -1, a34 INTEGER DEFAULT -1, a35 INTEGER DEFAULT -1, a36 INTEGER DEFAULT  
-1, a37 INTEGER DEFAULT -1, a38 INTEGER DEFAULT -1, a39 INTEGER DEFAULT -1, a40 INTE  
GER DEFAULT -1, a41 INTEGER DEFAULT -1, a42 INTEGER DEFAULT -1, a43 INTEGER DEFAULT  
-1, a44 INTEGER DEFAULT -1, a45 INTEGER DEFAULT -1, a46 INTEGER DEFAULT -1, a47 INTE  
GER DEFAULT -1, a48 INTEGER DEFAULT -1, a49 INTEGER DEFAULT -1, a50 INTEGER DEFAULT  
-1, a51 INTEGER DEFAULT -1, a52 INTEGER DEFAULT -1, a53 INTEGER DEFAULT -1, a54 INTE  
GER DEFAULT -1, a55 INTEGER DEFAULT -1, a56 INTEGER DEFAULT -1, a57 INTEGER DEFAULT
```



```
-1, a58 INTEGER DEFAULT -1, a59 INTEGER DEFAULT -1, a60 INTEGER DEFAULT -1, a61 INTEGER DEFAULT -1, a62 INTEGER DEFAULT -1, a63 INTEGER DEFAULT -1, a64 INTEGER DEFAULT -1, a65 INTEGER DEFAULT -1, a66 INTEGER DEFAULT -1, a67 INTEGER DEFAULT -1, a68 INTEGER DEFAULT -1, a69 INTEGER DEFAULT -1, a70 INTEGER DEFAULT -1, a71 INTEGER DEFAULT -1, a72 INTEGER DEFAULT -1, a73 INTEGER DEFAULT -1, a74 INTEGER DEFAULT -1, a75 INTEGER DEFAULT -1, a76 INTEGER DEFAULT -1, a77 INTEGER DEFAULT -1, a78 INTEGER DEFAULT -1, a79 INTEGER DEFAULT -1, a80 INTEGER DEFAULT -1);";  
[self.db executeUpdate:createTablerounds];
```

```
NSMutableDictionary *dictionary = [[NSMutableDictionary alloc] init];  
[dictionary setObject:roundname forKey:@"roundname"];  
[self.database executeUpdate:@"update rounds set roundname=:roundname" withParameterDictionary:dictionary];
```

```
-saveNewRoundData  
    // roundname,roundtime
```

```
-saveRoundResultData  
    // homePointHistory, awayPointHistory
```