

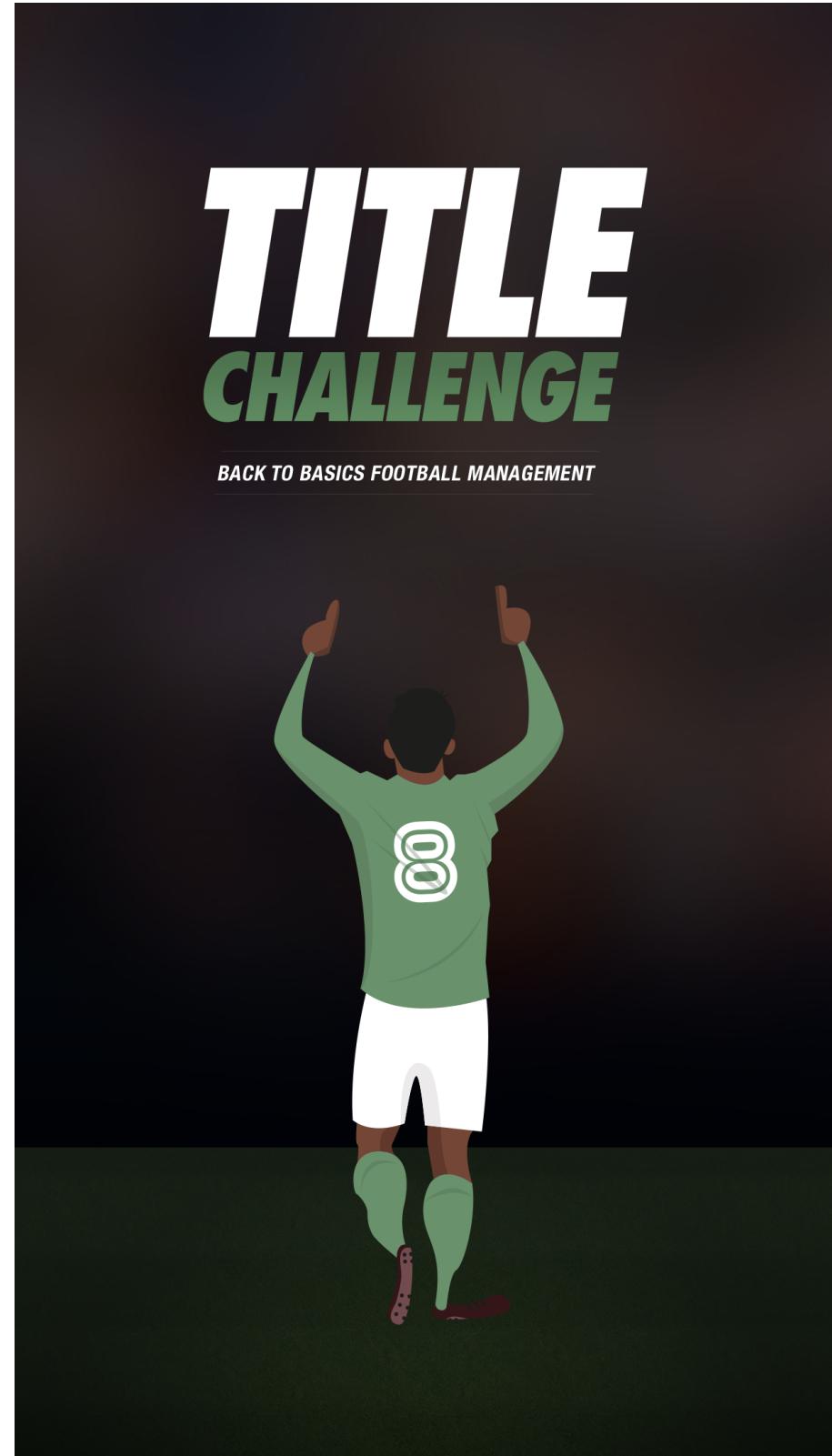
Building Title Challenge

From idea to App Store

@paulsturgess

paulsturgess.co.uk

kyan.com



Carrier 11:20 AM

Select Club

Prem Champ Lg One Lg Two

- Arsenal**
Ashburton Grove (60,000)
Bank Balance: £15m
- Aston Villa**
Villa Park (40,000)
Bank Balance: £8m
- Burnley**
Turf Moor (20,000)
Bank Balance: £8m
- Chelsea**
Stamford Bridge (40,000)
Bank Balance: £15m
- Crystal Palace**
Selhurst Park (25,000)
Bank Balance: £8m
- Everton**
Goodison Park (35,000)
Bank Balance: £13m
- Hull**
Walton Street (25,000)
Bank Balance: £8m
- Leicester**
Filbert Way (30,000)
Bank Balance: £8m

••••• O2-UK 14:42 59%

Week 27

Season 21

This Week St James' Park

Newcastle vs Man City

Newcastle 1st

Man City 3rd

	Pld	GD	Pts
1 - Newcastle	18	39	52
2 - Chelsea	18	31	44
3 - Man City	18	30	41
4 - Liverpool	18	23	40
5 - West Brom	18	9	34
6 ▲ Man Utd	18	7	31
7 ▼ Arsenal	18	11	30

Finances: Balance
£55.5m

Continue

●●○○ O2-UK 14:43 59%

Newcastle United Squad

- A Holtby** Goalkeeper Age 24 £18.5m ★★★★★

App	Gls	Ast	Avg
18	0	0	8.94
- N Mimoun** A LC Forward Age 22 £18m ★★★★★

App	Gls	Ast	Avg
17	14	9	9.06
- P James** M LC Playmaker Age 22 £17.5m ★★★★★

App	Gls	Ast	Avg
17	5	8	8.71
- D Gucher** M C Box-to-box Age 26 £15m ★★★★★

App	Gls	Ast	Avg
7	2	0	9.14
- L Lollo** M C Holding Age 22 £14.5m ★★★★★

App	Gls	Ast	Avg
16	0	0	8.00
- G Dupé** D C Utility Age 27 £14m ★★★★★

App	Gls	Ast	Avg
17	0	0	7.71

Profile **Squad** **Tactics** **Fixtures** **History**

●●○○ O2-UK 14:44 58%

Newcastle United Tactics

Subs

Next fixture: Home to Man City (3rd)

Profile **Squad** **Tactics** **Fixtures** **History**

●●○○ O2-UK 14:47 57%

Player Details

←

Paul James
M LC
Playmaker
£17.5m
★★★★★

Club Newcastle **View Squad**

Squad Status First Team Morale Happy

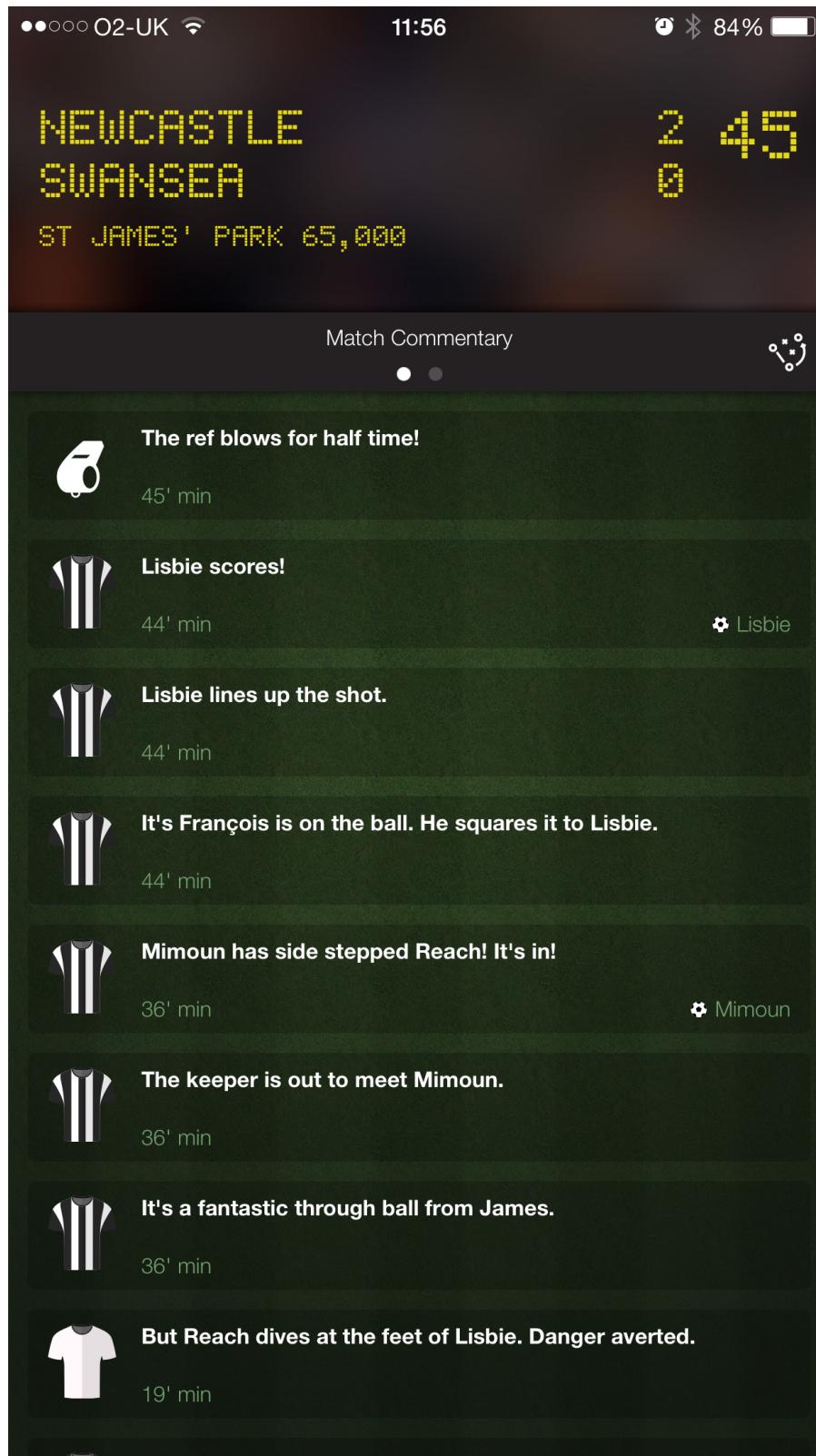
Age 22 Training Average

Current Season – Signed for £22.5m

	Apps	Gls	Ast	Yel	Red	MoM	Avg R
17	5	8	5	0	2	8.71	

S	Club	App	Gls	Ast	Yel	Red	MoM	Avg
21	Real Madrid	0	0	0	0	0	0	0.00
20	Real Madrid	29	19	9	3	0	8	8.83
19	Real Madrid	34	12	8	1	0	5	8.06
18	Real Madrid	34	11	6	3	0	1	8.09
£3.75m								
17	Leicester	38	17	9	5	0	7	8.26
17	Leicester	4	0	1	2	0	0	7.50
16	Leicester	44	20	4	5	0	10	8.07
15	Leicester	44	21	5	10	0	8	7.89

Add to transfer list



●●○○ O2-UK 14:46 57% ⚡

Player Search
Bank Balance: £55.5m

All GK Def Mid Att

Age: 16–40, £0–£50m, Interested

Search player or club name

A Verre A C – Striker Chelsea Age 29 £26m ★★★★★
App 17 Gls 18 Ast 2 Avg 9.00

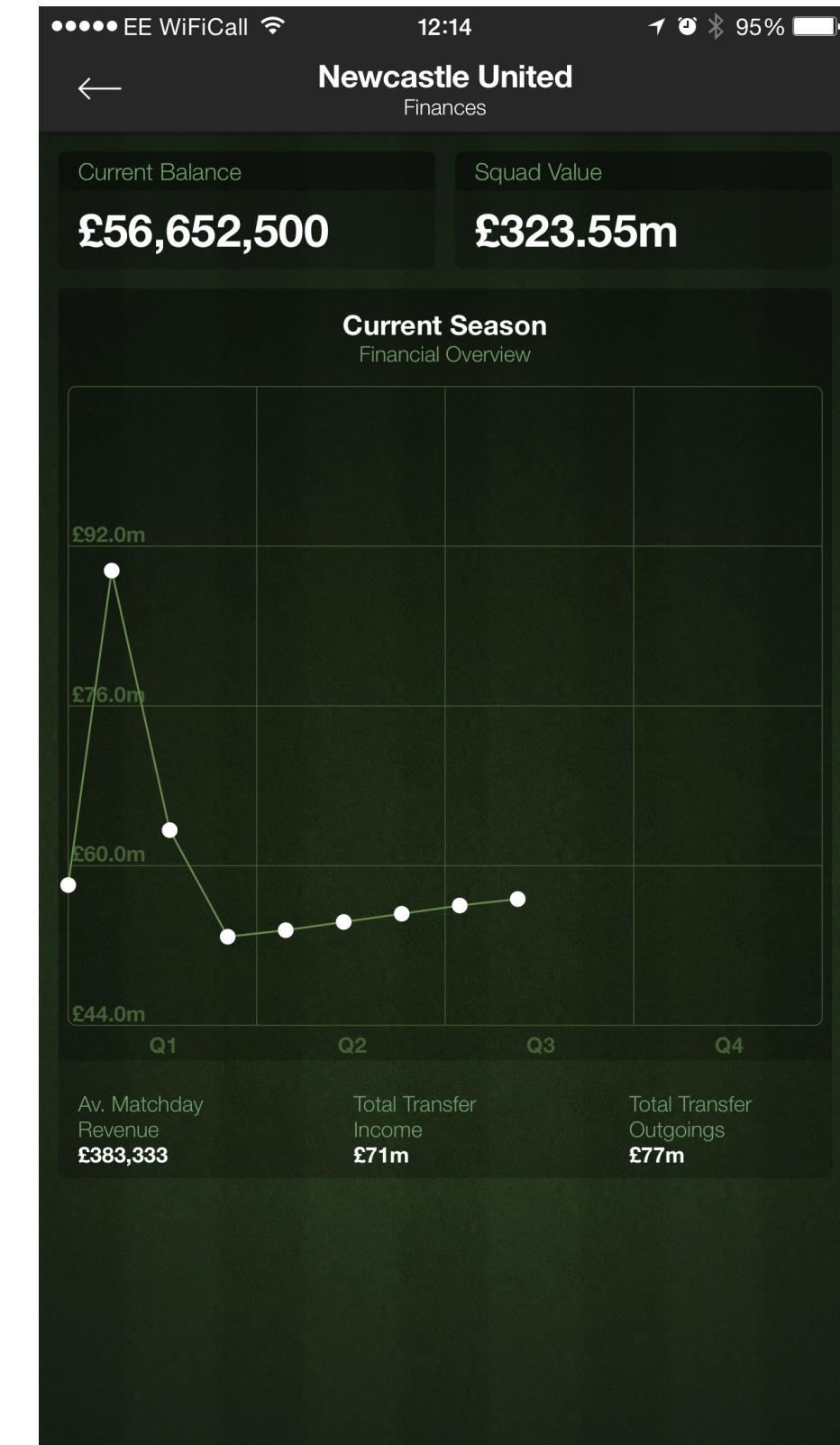
M Maoulida M C – Holding Atlético Age 27 £24.5m ★★★★★
App 17 Gls 1 Ast 6 Avg 8.24

I Bellini A LRC – Forward Liverpool Age 28 £24m ★★★★★
App 17 Gls 9 Ast 2 Avg 8.47

Rodríguez M C – Box-to-box Bayern Munich Age 28 £24m ★★★★★
App 15 Gls 3 Ast 8 Avg 8.60

L Leckie M RC – Holding Barcelona Age 28 £22m ★★★★★
App 18 Gls 2 Ast 6 Avg 8.06

J Jarvis D C – Utility Atlético Age 25 £21.5m ★★★★★
App Gls Ast Avg



"Life begins at the end of your
comfort zone"

This talk

- User Interface
- Prototyping
- Pure Ruby
- Core Data
- Memory

User Interface

Layout in code

Autolayout

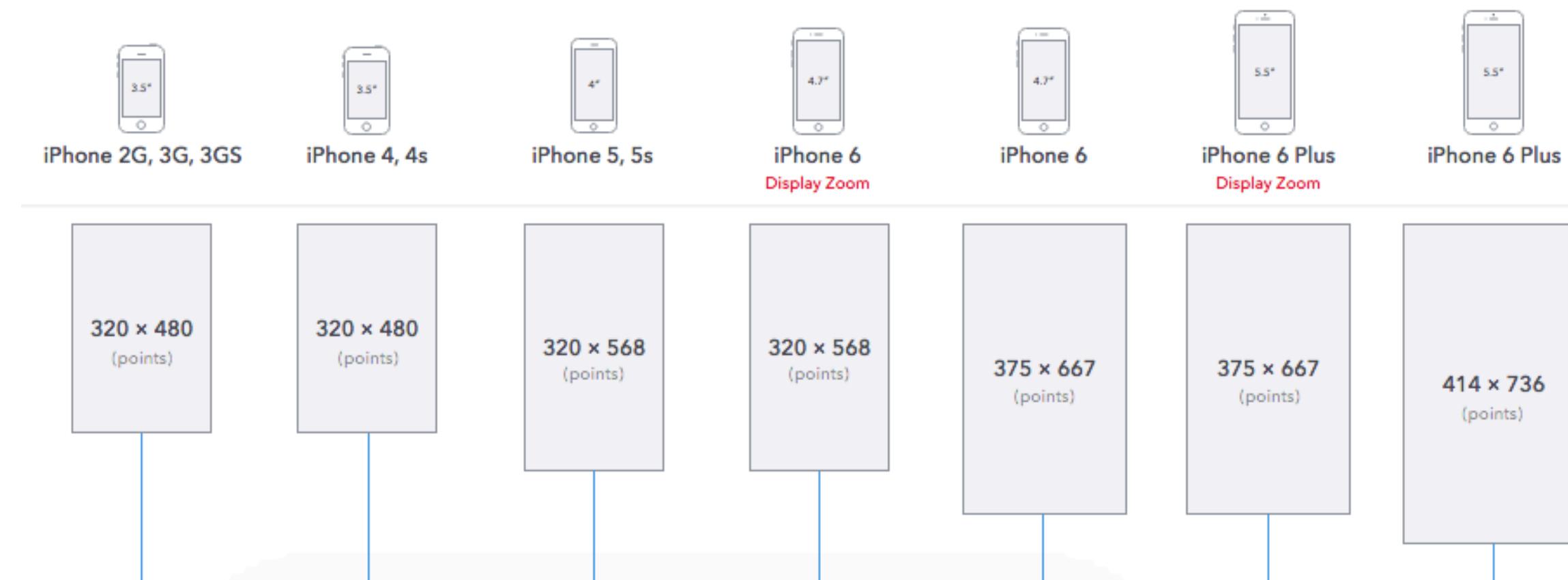
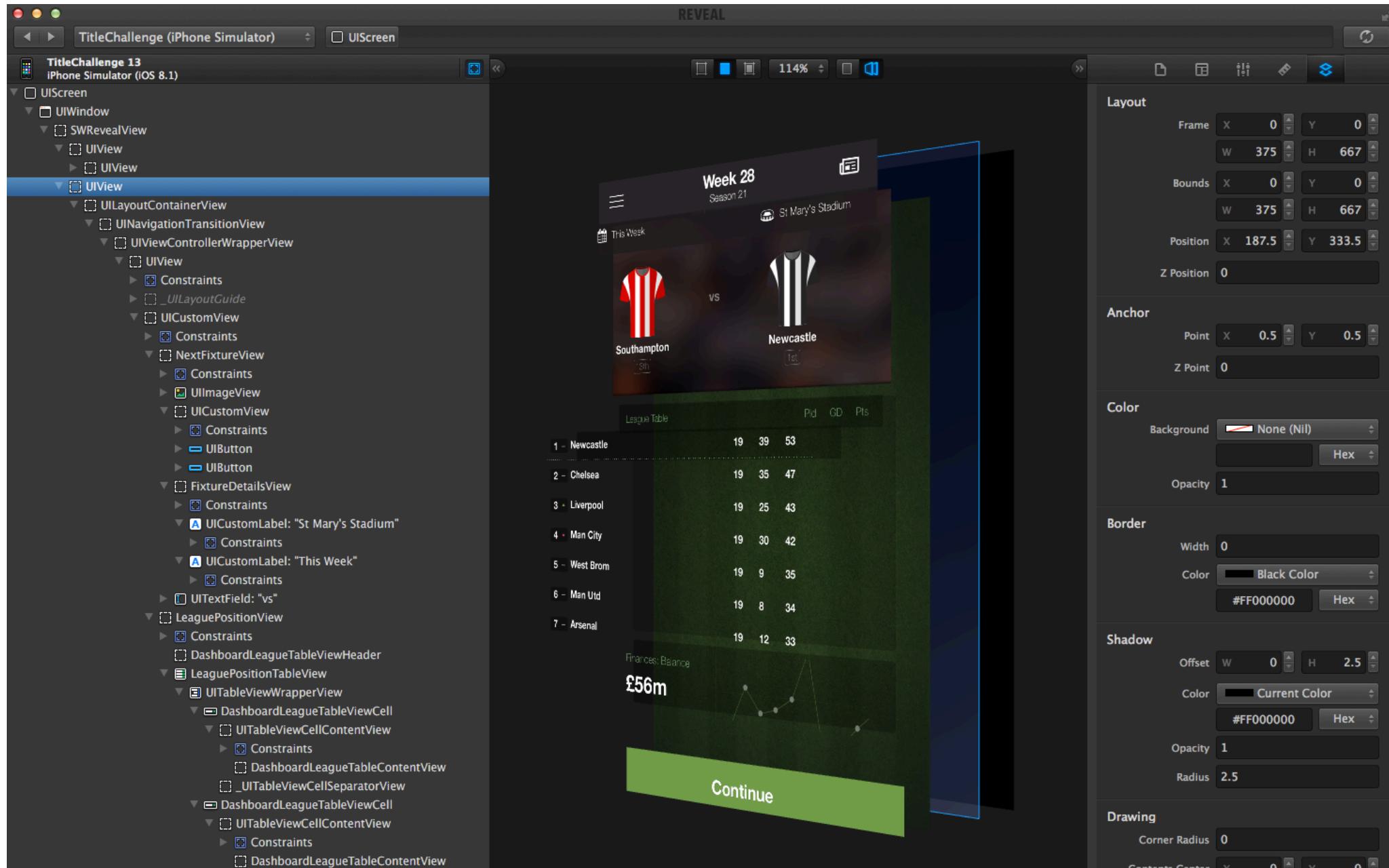


Image Source: Paintcode ultimate guide to iPhone resolutions

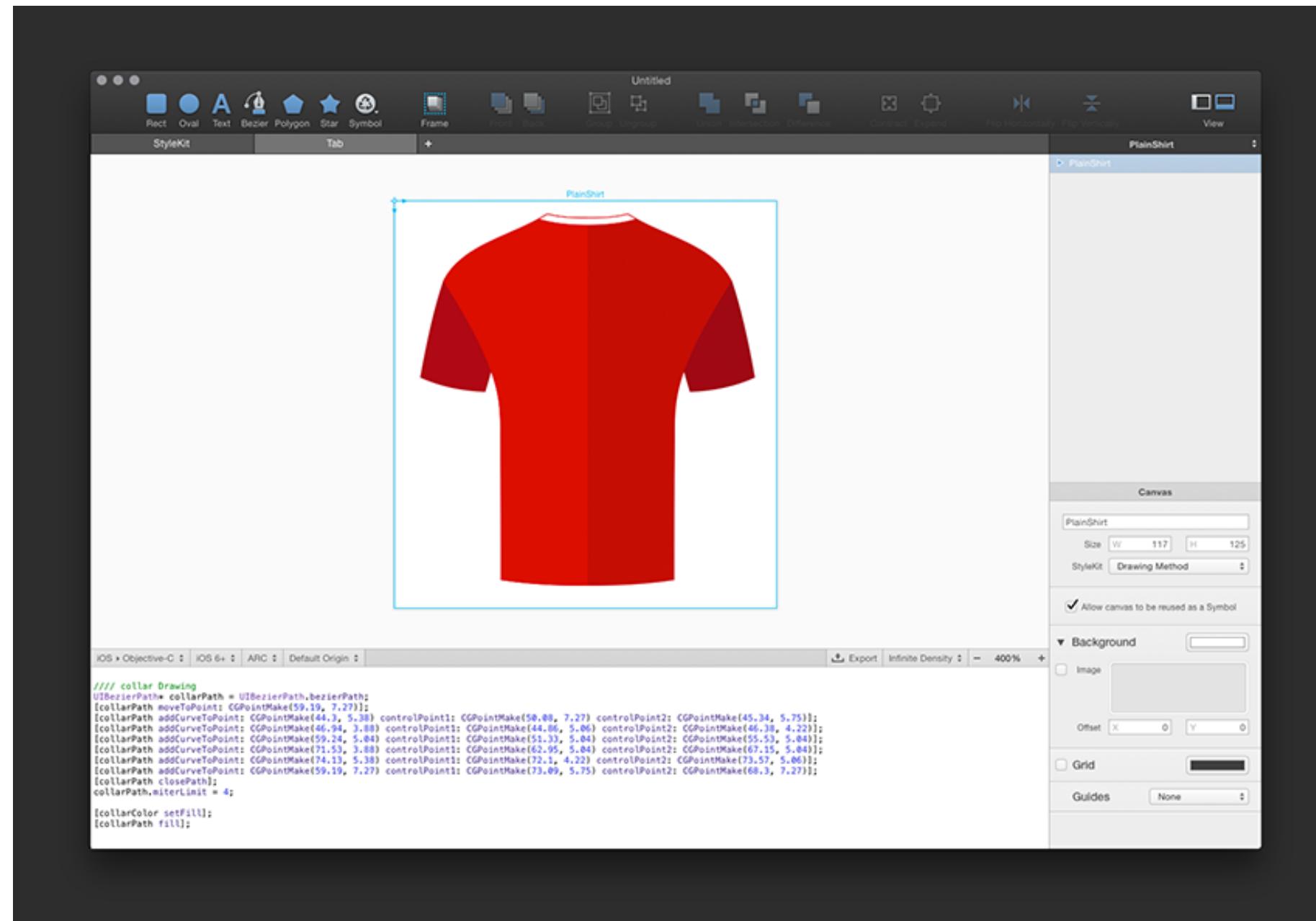
Reveal App







Paintcode



The Asset Catalog



Prototyping

Carrier	9:14 AM	10:24 AM	Carrier	3:36 PM
Menu	Squad	Division 1	Menu	Fixtures
All	GKs	Div 1	Nottingham Forest	H Div 1
Defs	Mids	Div 2	Manchester City	H Div 1
Atts		Div 3	Sheffield Wednesday	H Div 1
		Div 4	Manchester City	H Div 1
		Pld	Leeds United	A Div 1
Bruce Grobbelaar (GK) Foo	Rob Jones (DR) Foo	Manchester United	Leeds United	H Div 1
David Burrows (DL) Foo	Julian Dicks (DL) Foo	Aston Villa	Blackburn Rovers	H Div 1
Steve Nicol (DC) Foo	Mark Wright (DC) Foo	Norwich City	Queens Park Rang...	A Div 1
Don Hutchison (AMC) Foo	Nigel Clough (MRC) Foo	Blackburn Rovers	Liverpool	H Div 1
Ian Rush (AC) Foo	Tottenham Hotspur	Queens Park Rang...	Sheffield Wednes...	H Div 1
Paul Stewart (AC) Foo	Manchester City	Liverpool	Tottenham Hotspur	A Div 1
John Barnes (AMRC)	Arsenal	Sheffield Wednes...	Manchester City	H Div 1
		Manchester City	Coventry City	H Div 1
			Arsenal	H Div 1
			Oldham Athletic	A Div 1
			Coventry City	H Div 1
			Wimbledon	H Div 1
			Fleetwood	A Div 1

Menu

Game

Menu

Game

Menu

Game

Play game**Play game****2 - 1****0 - 2****Arsenal 2 - Chelsea 0**

20' Arsenal 10

30' Arsenal 7

Final whistle!But the move breaks down
86Player 53 does well to
intercept the pass.
84But the move breaks down
78Player 9 does well to
intercept the pass.
77Goal scored by 511!
76The ball breaks for Player
11 who's through on goal**Make tactical change**A poor first touch by Chelsea 8 allows
Arsenal 8 to clear the danger.

39

Chelsea 3 dribbles around Arsenal 7.

39

Goal scored by Arsenal 7!

30

Arsenal 7 with an excellent first touch



Arsenal Order Sub Menu				
All	GKs	Defs	Mids	Atts
T Adams (D C) *				
S Bould (D C)				
K Campbell (A RC)				
J Carter (MA L)				
P Davis (M RC)				
P Dickov (MA RC)				
L Dixon (D R)				
M Flatts (M LC)				
D Hillier (M C)				
J Jensen (M RC)				

Game Go To Stats

Aston Villa 2 90
Sheffield United 0

Villa Park 41860 (91)

Wirmola '46

Houghton '55

Saunders '70

90 min

But Bosnich makes that save look easy.

90 min

That's a sublime flick towards goal from Rogers.

90 min

Rogers has lost his marker.

90 min

That's some skill on the touchline by Hodges.

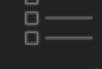
90 min



Tactics



Details



Squad



Tactics



Fixtures



Transfers

Match



MANCHESTER UTD 2
LIVERPOOL 5 12
OLD TRAFFORD 37,410 (86)

7	P Schmeichel	1	1	D James	7
4	G Ablett	2	2	J Dicks	4
9	S Bruce	3	3	R Jones	9
2	D Irwin	4	4	J Scales	2
6	G Pallister	5	5	N Ruddock	6
7	P Parker	6	6	S Nicol	7
8	L Sharpe	7	7	J Molby	8
5	R Keane	8	8	D Matteo	5
1	B McClair	9	9	S McManaman	1
9	A Kanchelskis	10	10	N Clough	9
5	G Neville	11	11	J Barnes	5
	C McKee	12	12	L Jones	8

Match



MANCHESTER UTD 2
LIVERPOOL 5 12
OLD TRAFFORD 37,410 (86)

- GOAL! Ian Rush scores a header 12min
- Barnes loops one towards the back post 12min
- Yellow card to Barnes 12min
- But he's been brought down by Barnes, that was a clumsy challenge 6min
- Pallister is through on goal 6min
- Kick off! 6min

••••• O2-UK 14:44 58%

Newcastle United

Tactics

Subs

Next fixture: Home to Man City (3rd)

Campbell A C (9)

James M LC (11)

Ruiz M C (10)

Heubach A LRC (7)

Gucher M C (8)

Lollo M C (4)

Fürstner D LC (3)

Santana D C (6)

Dupé D C (5)

Joaquín D RC (2)

Holtby (1)

Profile Squad Tactics Fixtures History

••••• O2-UK 14:43 59%

Newcastle United

Squad

All GK Def Mid Att

	A Holtby Goalkeeper	Age 24	£18.5m
		★★★★★	
	App Gls Ast Avg	18 0 0 8.94	
	N Mimoun A LC Forward	Age 22	£18m
		★★★★★	
	App Gls Ast Avg	17 14 9 9.06	
	P James M LC Playmaker	Age 22	£17.5m
		★★★★★	
	App Gls Ast Avg	17 5 8 8.71	
	D Gucher M C Box-to-box	Age 26	£15m
		★★★★★	
	App Gls Ast Avg	7 2 0 9.14	
	L Lollo M C Holding	Age 22	£14.5m
		★★★★★	
	App Gls Ast Avg	16 0 0 8.00	
	G Dupé D C Utility	Age 27	£14m
		★★★★★	
	App Gls Ast Avg	17 0 0 7.71	

Profile Squad Tactics Fixtures History

••••• O2-UK 11:56 84%

2 45
0

NEWCASTLE SWANSEA

ST JAMES' PARK 65,000

Match Commentary

The ref blows for half time!

45' min Lisbie scores!

44' min Lisbie lines up the shot.

44' min It's François is on the ball. He squares it to Lisbie.

36' min Mimoun has side stepped Reach! It's in!

36' min The keeper is out to meet Mimoun.

36' min It's a fantastic through ball from James.

19' min But Reach dives at the feet of Lisbie. Danger averted.

Profile Squad Tactics Fixtures History

Pure Ruby

- Separation of concerns
- Share with other applications
- Easier to test
- Faster to test
- Make your own gems

Persistence

Core Data != SQLite

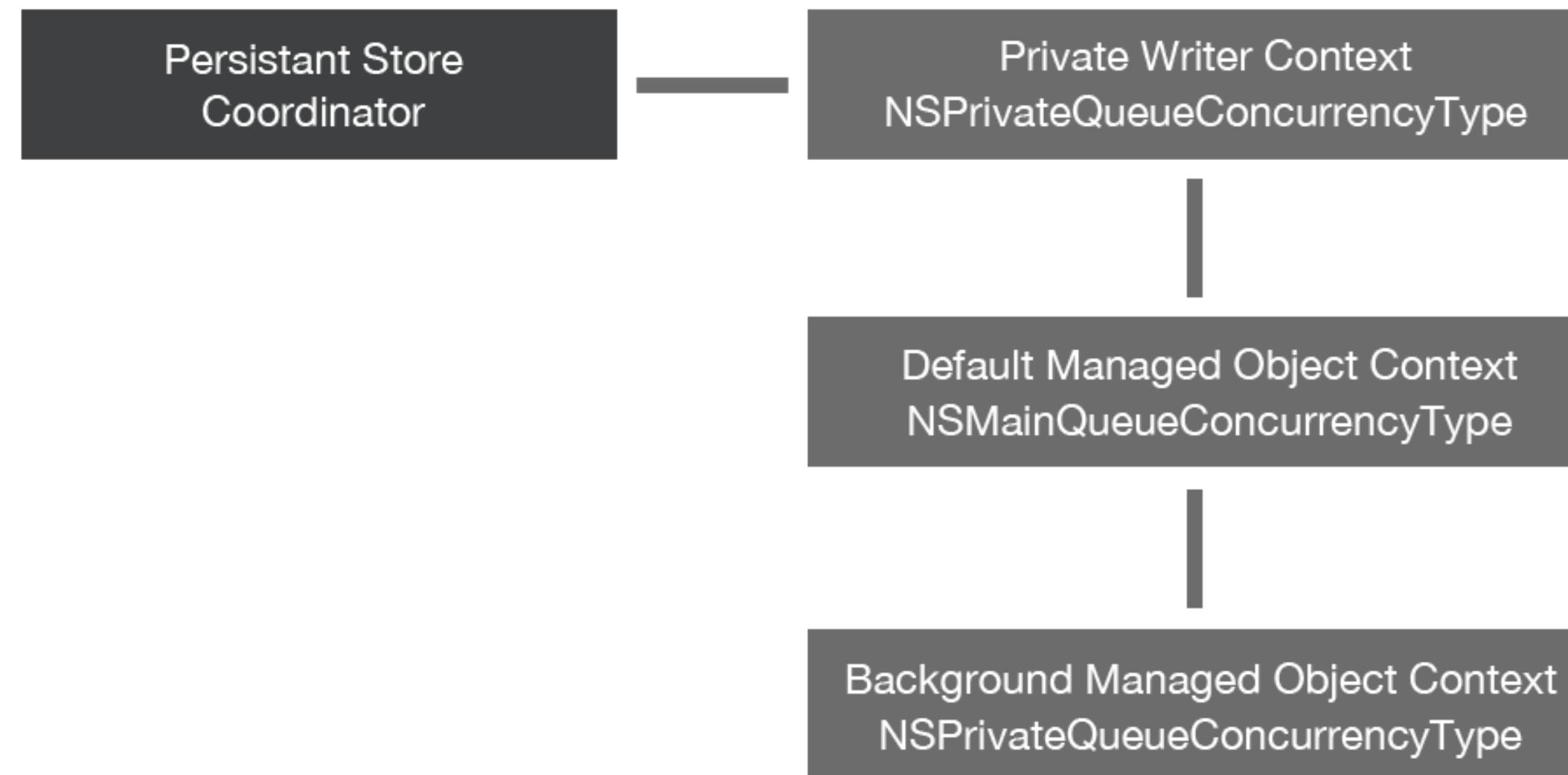
Processing

IT'S BETTER TO GO DOWN WITH
YOUR OWN VISION THAN WITH
SOMEONE ELSE'S.

JOHAN CRUYFF



Title Challenge Core Data Stack



Memory

- Cyclic references
- Leaked memory
- Abandoned memory

Debugging

- Implement `didReceiveMemoryWarning` on Controllers
- Subscribe to memory warnings – `NSNotificationCenter`
- Simulate memory warnings on the device
- Instruments

Final tips

- Don't use up all your beta-testers
- Don't underestimate the final 1%

Thanks

Any questions?

titlechallenge.com