

# **Some explorations about CoreText.**

**Aymen Rebouh - iOS Engineer**

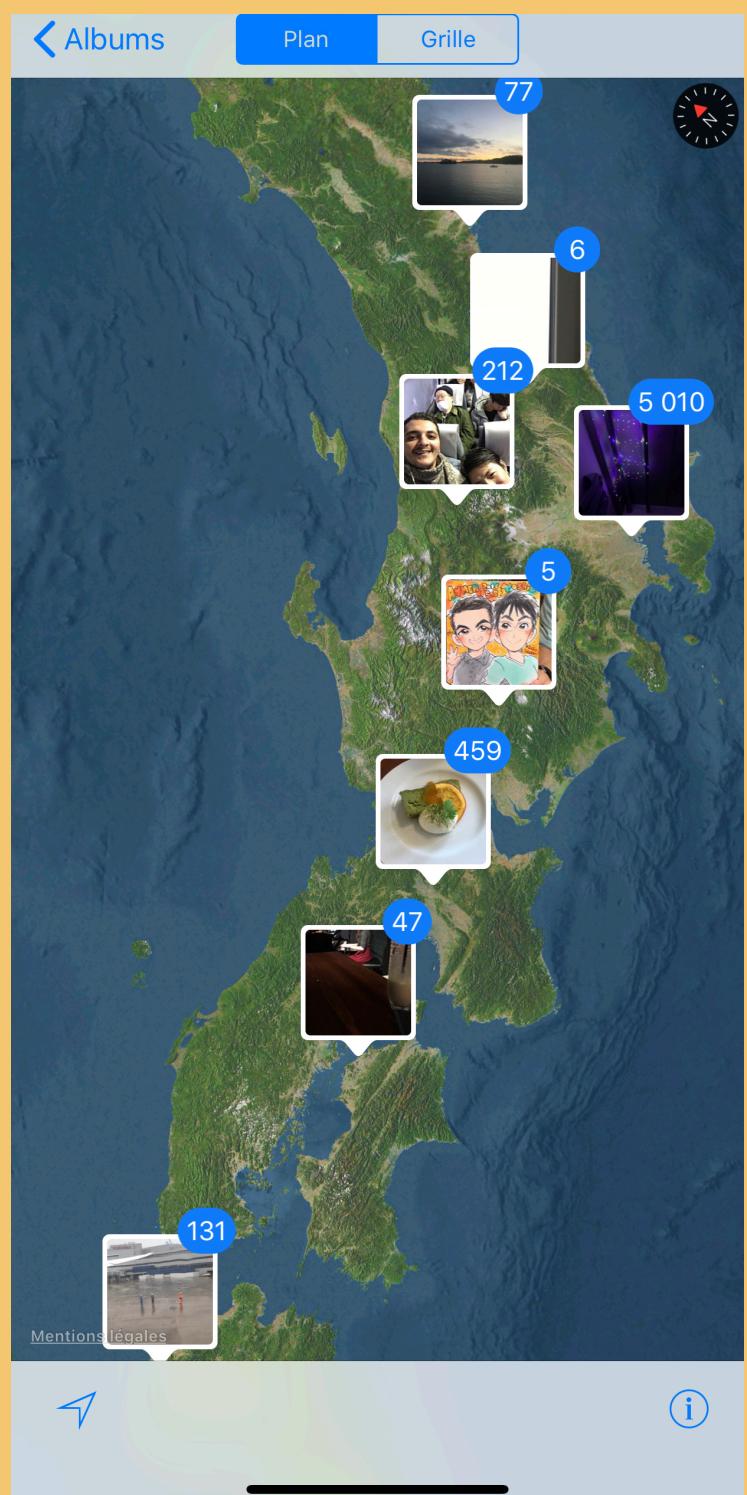
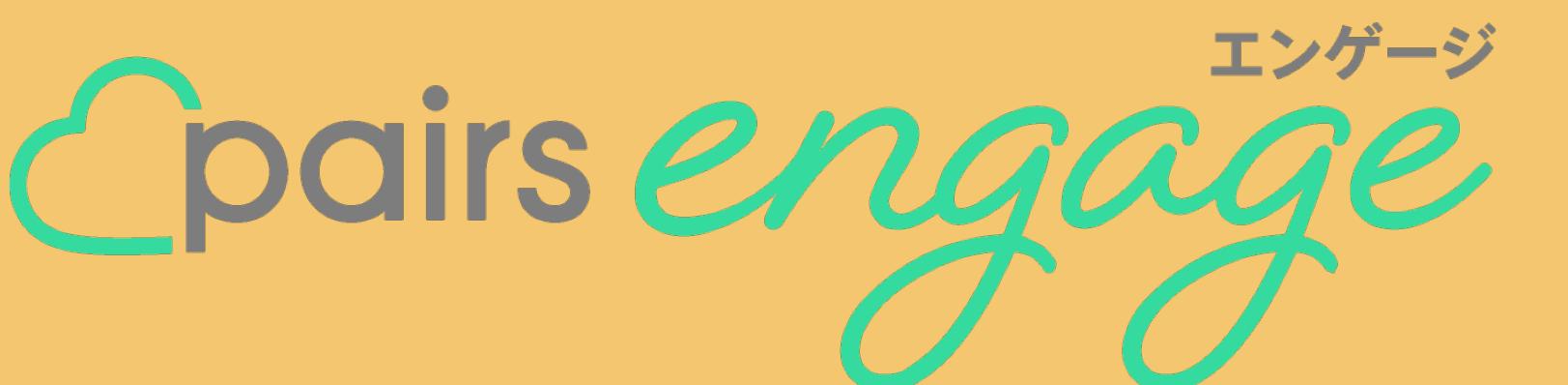
# Aymen Rebouh

🇫🇷 Grew up and studied in the south of France, nearby the Mediterranean Sea, but I don't like sea food 😞



🇯🇵 2015 - 2017 : Travelled in Japan multiple time before coming

🇯🇵 2017 - Present : Living in Japan

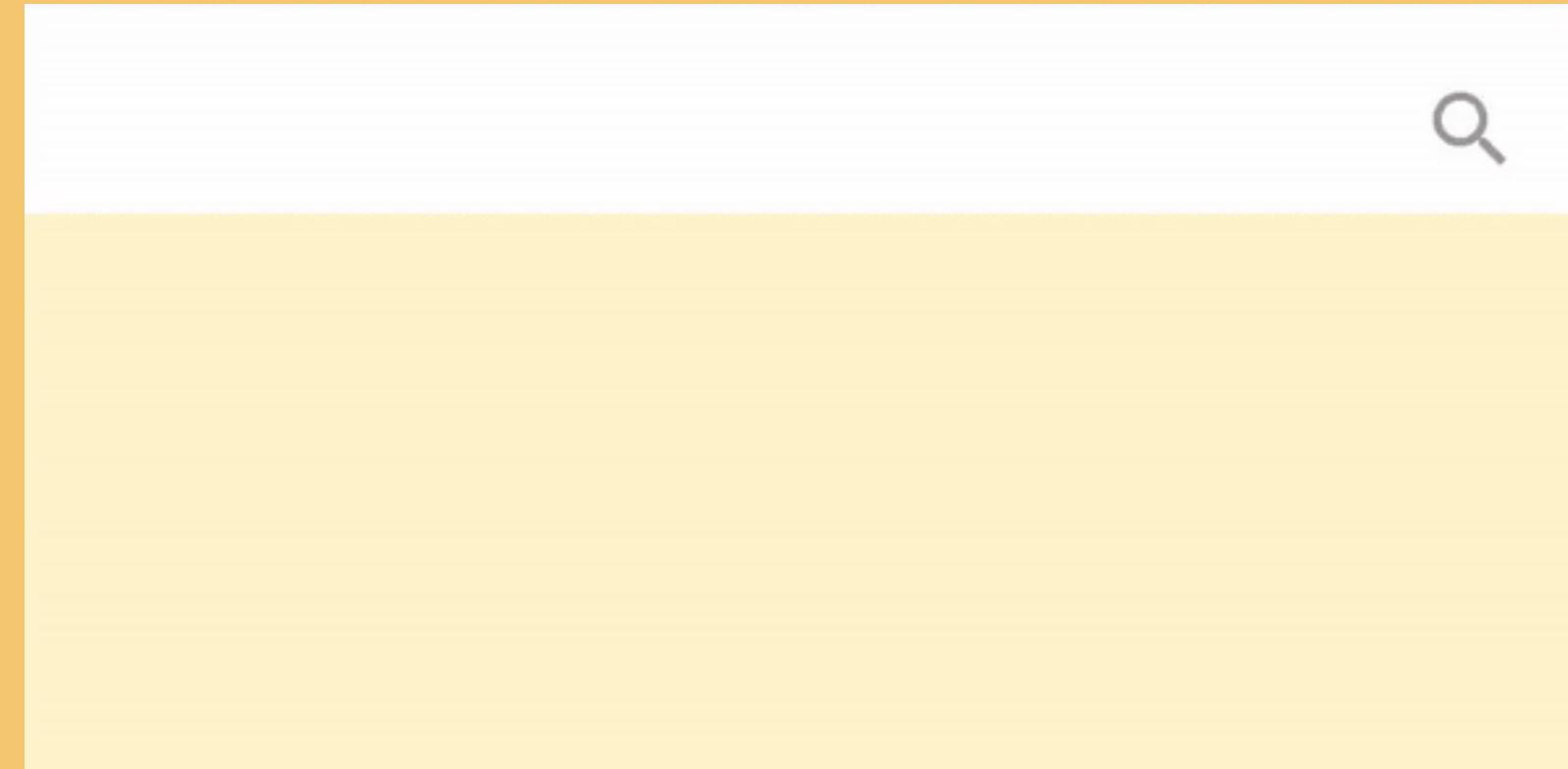
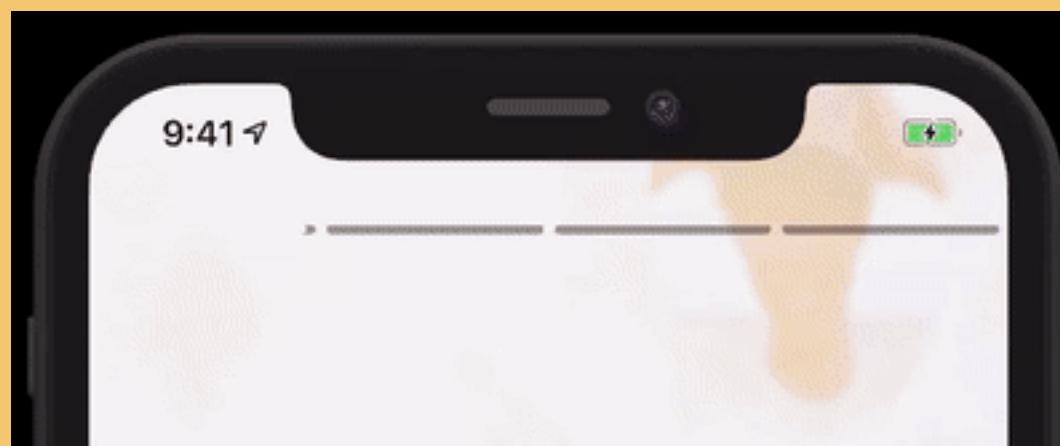
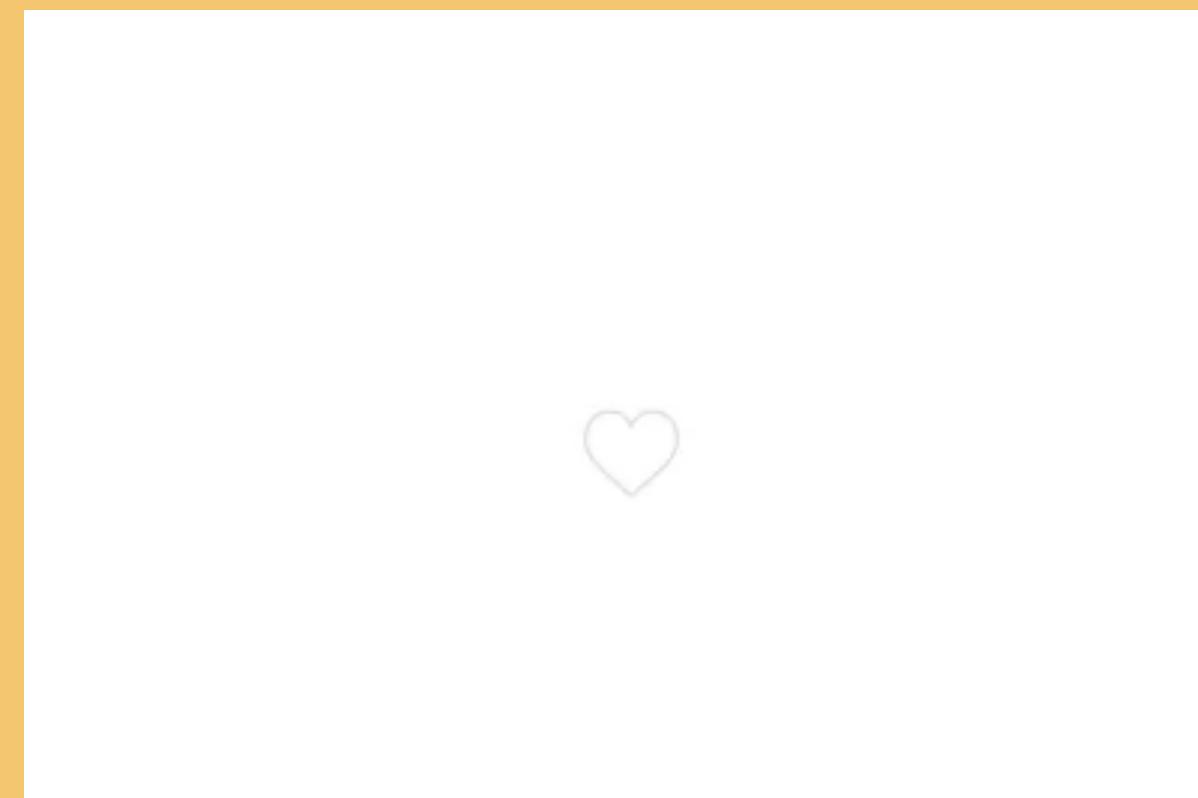
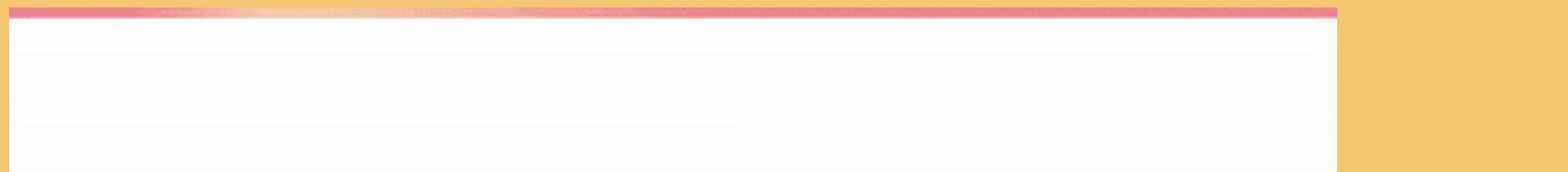


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# **How did I come up with this CoreText topic?**

# Animation Challenge

<https://github.com/Aymenworks/AnimationsChallenge>



# Animation Challenge

<https://github.com/Aymenworks/AnimationsChallenge>



**We use custom text  
drawing everywhere.**

*Lorem ipsum  
 dolor sit amet, c  
 onsectetur adipiscin  
 g elit. Itaque fecimus.  
 Aliter homines, aliter p  
 hilosophos loqui putas op  
 ortere? Sed haec omittamus;  
 Illa tamen simplicia, vestra versuta.*

*Duo Reges: constructio interrete. Compensabatur, inquit, cum summis dolori  
 bus laetitia. Quis est tam dissimile homini. Stoicos roga.*

*Collatio igitur ista te nihil iuvat. Easdemne res? Nos cum te, M. Tu quidem reddes; Vide  
 , quaeso, rectumne sit. Quo tandem modo?*

*Quod equidem non reprehendo; An nisi populari fama? Aufert enim sen  
 sus actionemque tollit omnem. Quae ista amicitia est?*

*Praeclare hoc quidem. Summae mihi videtur inscitiae.  
 Sed mehercule pergrata mihi oratio tua. Quare atten  
 de, quaeso. Num quid tale Democritus? At enim hic e  
 iam dolore.*

*Compensabatur, inquit, cum summis doloribus laetitia. Ni  
 nil sane. At coluit ipse amicitias. Ut aliquid scire se gaudea  
 nt? Graccho, eius fere, aequali? Ea possunt paria non esse.  
 Deprehensus omnem poe  
 nam contemnet.*

*Non semper, i  
 nquam; Velut*

**We use custom text drawing  
everywhere nowhere.**

```
let attributes: [NSAttributedString.Key: Any] = [  
    .font: font,  
    .foregroundColor: UIColor.blue,  
]
```

# Aymen

```
let attributes: [NSAttributedString.Key: Any] = [  
    .font: font,  
    .foregroundColor: UIColor.blue,  
    .strokeColor: UIColor.red,  
    .strokeWidth: 5  
]
```

# Aymen

```
let attributes: [NSAttributedString.Key: Any] = [
    .font: font,
    .foregroundColor: UIColor.blue,
    .strokeColor: UIColor.red,
    .strokeWidth: 5
]
```

# Aymen

```
let attributes: [NSAttributedString.Key: Any] = [
    .font: font,
    .foregroundColor: UIColor.blue,
    .strokeColor: UIColor.red,
    .strokeWidth: -5
]
```

# Aymen

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# CoreText

# **Core Text:**

- **Low-level text engine**
- **No necessary for simple text displaying and formatting**
- **Can be used for custom text layout and formatting**
- **Good friends with core Graphics and its shapes paths**

# **Useful cases:**

- **Magazine/Newspaper app**
- **Custom drawing/  
animation when no  
design ressources in  
your team**

**Practice**

# **What we are going to do**

# Practice 1

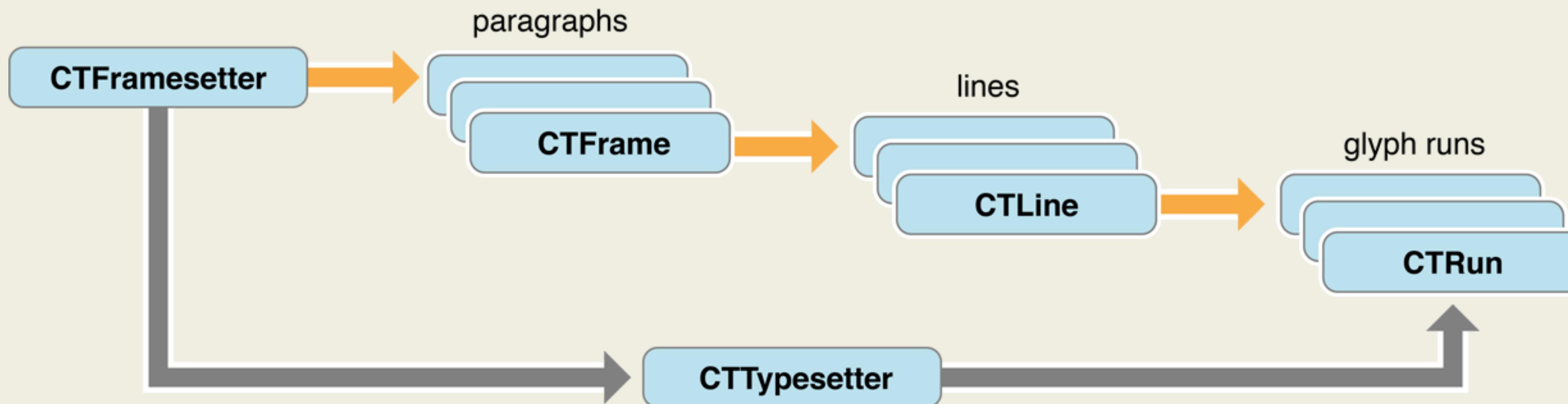
Hi there! I am a ShapeView! I am a big text which wants to be displayed into a giant circle at the top of the screen for this presentation because.. I don't know. Just do it. Say hi to everyone in the room by the way.

**Demo 1**

# **Summary of experimentation 1**

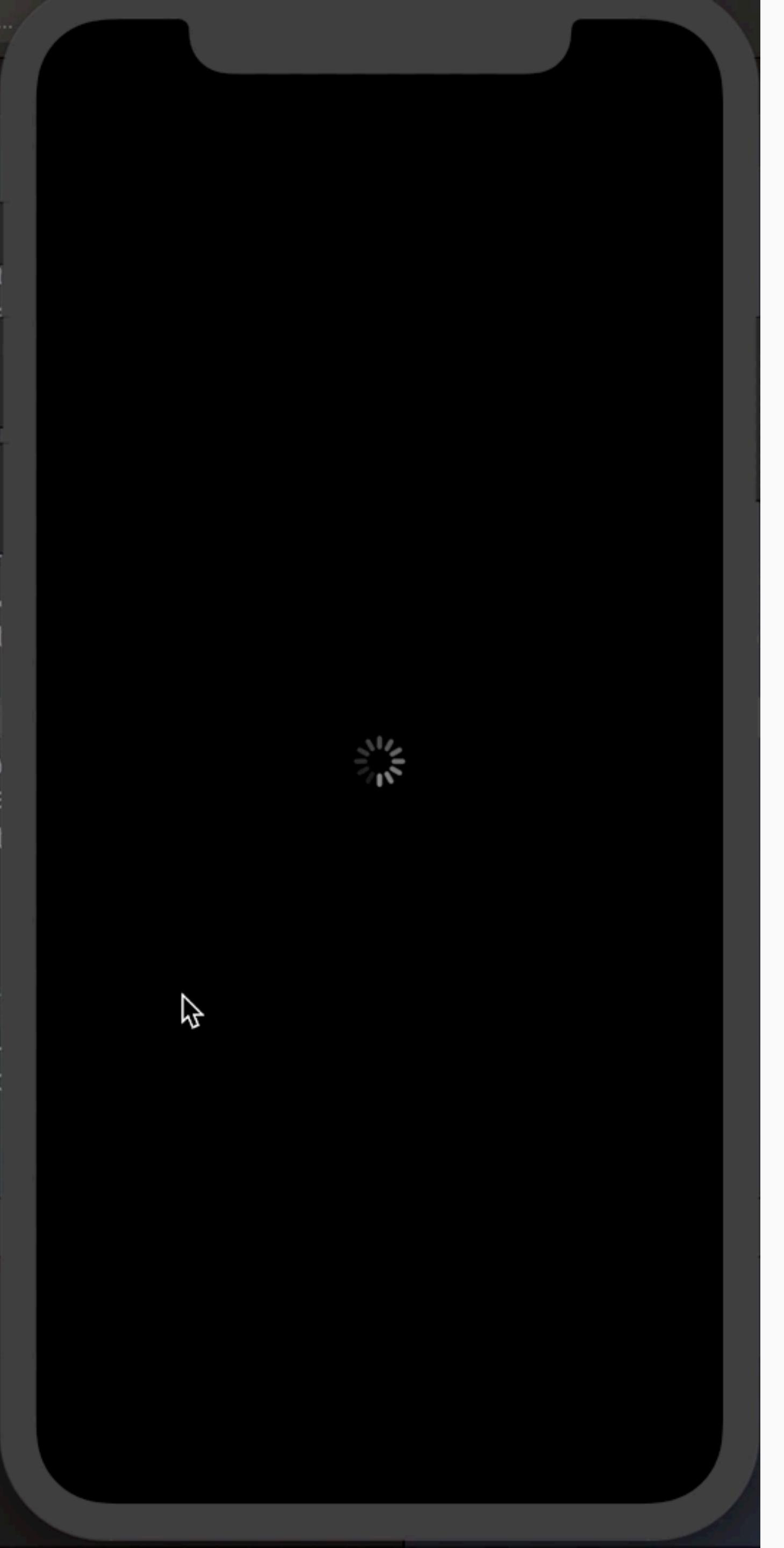
- 1. Create your text and it's attribute**
- 2. Don't forget that the y-axis coordinate and the content is flipped, and its content as well**
- 3. Create the shape you want to text to fit in**
- 4. Create the CTFramesetter that takes care of managing the drawing frames**
- 5. Create the CTFrame that will render the text within the shape**
- 6. Draw the CTFrame**

# Summary of experimentation 1



# Practice

# 2



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# Demo 2

# **Summary of experimentation 2**

- 1. Create your text**
- 2. Map them into glyph: you can verify the index at <https://fontdrop.info>**
- 3. Get the CGPath for each letter ( or glyph )**
- 4. Create a CAShapeLayer with that path**
- 5. Animate the strokeEnd of the CAShapeLayer**

[github.com/Aymenworks/  
CoreTextExploration](https://github.com/Aymenworks/CoreTextExploration)

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# Thank you! 👍

Aymen Rebouh - iOS Engineer