Skia 12/19

Text

- Paragraph
- Text
    - System fonts available via Skia.FontMgr.System()
    - System fonts may be listed with listFontFamilies
    - matchFont will match fonts from the system font manager

How matchFont uses APIs:

```
import {Platform} from "react-native";
import {Skia, FontStyle} from "@shopify/react-native-skia";

const familyName = Platform.select({ ios: "Helvetica", default: "serif" });
const fontSize = 32;
// Get the system font manager
const fontMgr = Skia.FontMgr.System();
// The custom font manager is available via Skia.TypefaceFontProvider.Make()
const customFontMgr = Skia.TypefaceFontProvider.Make();
// typeface needs to be loaded via Skia.Data and instanciated via
// Skia.Typeface.MakeFreeTypeFaceFromData()
// customFontMgr.registerTypeface(customTypeFace, "Roboto");

// Matching a font
const typeface =  fontMgr.matchFamilyStyle(familyName, FontStyle.Bold);
const font = Skia.Font(typeface, fontSize);
```

- Glyphs
    - Typefaces are coherent collections of shapes in a given typograph style.
        - Glyphs are individual shapes or images in the typeface. They represent the smallest drawing element within a typeface.
        - Glyphs can be ordered and positioned in any setting.
- Text Path
    - Draws text along a path.
- Text Blob
    - Contains glyphs, paint attributes, and positions specific to the text.

Shaders

- Shading Language
    - Syntax is very similar to GLSL from OpenGL.
    - SkSL: https://github.com/google/skia/tree/main/src/sksl#readme
    - Play around with shaders: https://shaders.skia.org/
    - Shaders can be nested with one another.

A look into how to use shaders in Skia:
- Step 1: Create a shader and compile it using *RuntimeEffect.Make*
- Step 2: Use Shader and Uniform in markup to create desired effect.

- Image Shaders
- Gradients
    - Linear Gradient: one point to another
    - Radial Gradient: center and radius
    - Two Point Conical Gradient: conical gradient with two given circles
    - Sweep Gradient: sweep gradient given a center
- Perlin Noise
    - Returns a shader with fractal noise
- Blending and Colors
    - Blend Shader: combines shaders with blendmode
    - Color Shader: shader with a given color basically