INTRODUCTION TO

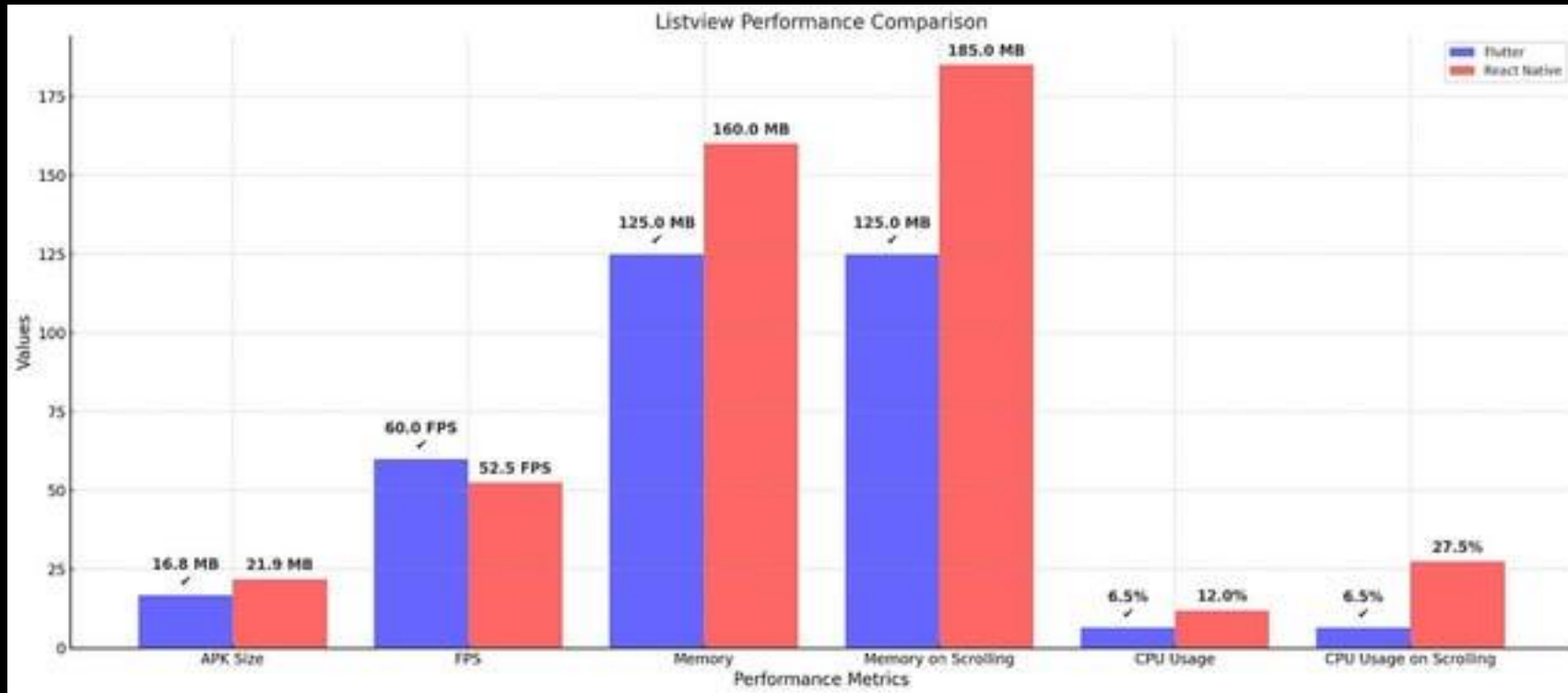## WITH AI INTEGRATION

THE BEST MOBILE APPS FRAMEWORK

WHY FLUTTER?

Flutter beats React Native in almost every benchmark

Dart is strongly typed language, null-safe.

All in one! Literally

Flutter is backed by Google and is gaining more popularity.
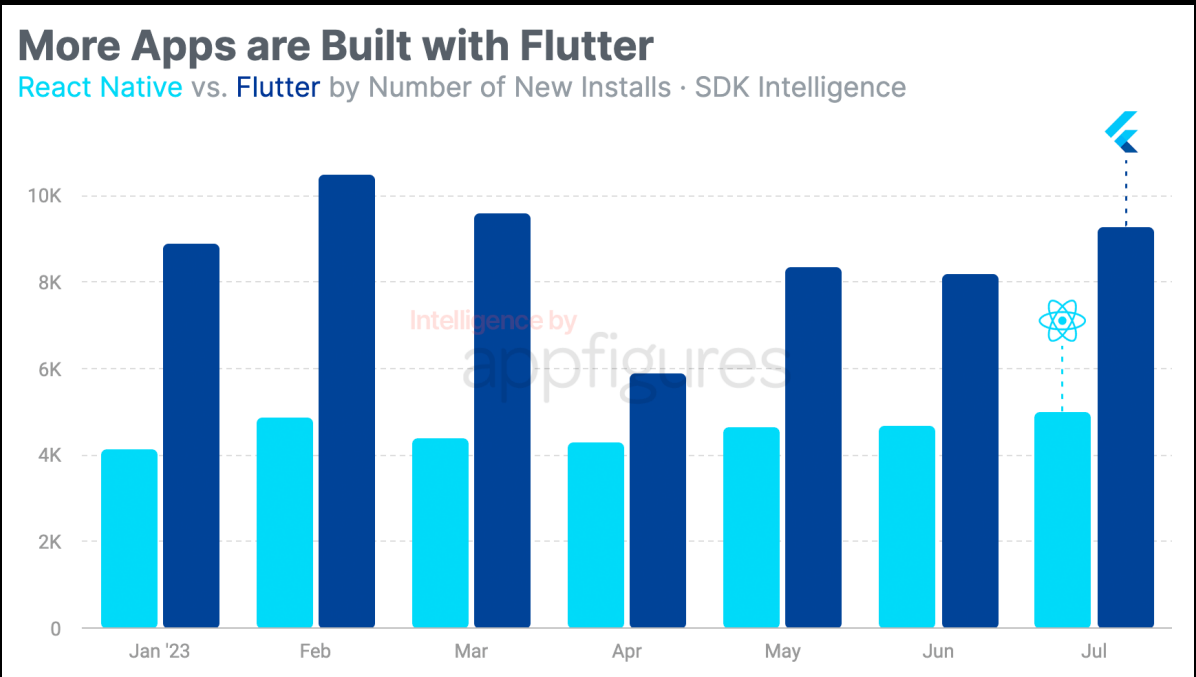
Flutter Architecture Overview

- **Widget:** the fundamental building block for constructing user interfaces.
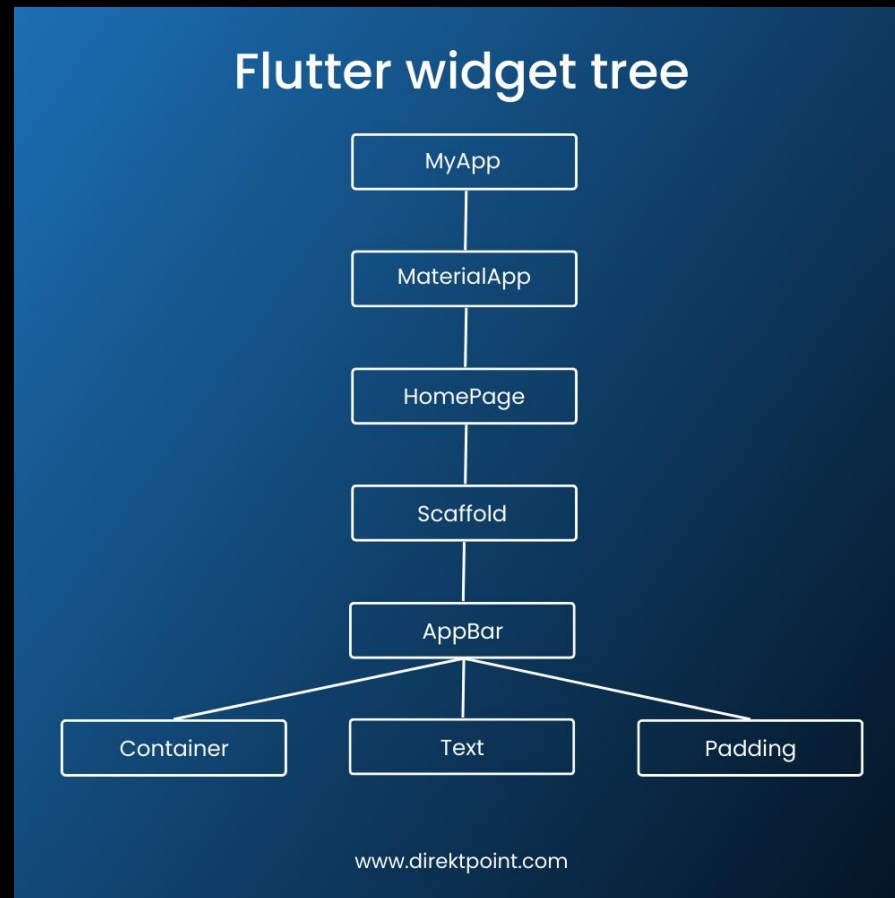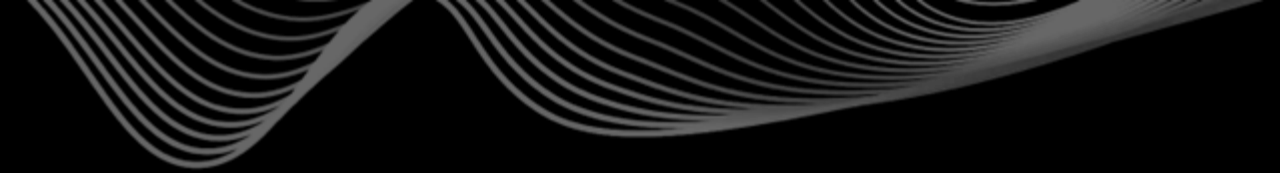
- **Everything is a widget:** Text, buttons, layouts.

- **Widget Tree & Build:** Each widget's build(BuildContext context) returns more widgets (layout, visuals, child widgets). Flutter builds a tree of widgets that describe the UI.

- **Entry point is "main" method** | *void main() => runApp(MyApp());*

- **StatelessWidget** vs **StatefulWidget**
  - StatelessWidget → Static UI (like a screen with text)
  - StatefulWidget → Dynamic UI (like a counter or page that changes on loading)

- **Hot reload** 🔥

Flutter Architecture Overview

Flutter widget tree

MyApp → MaterialApp → HomePage → Scaffold → AppBar → Container, Text, Padding

www.direktpoint.com

Creating an app in flutter (simply)

1. Download flutter's extension on VSCode & Flutter's sdk
2. Download Android Studio (if you want Android emulator)
3. Get a mac (if you want to develop on iOS)
4. Run "flutter create my_app"
5. Run "flutter run"

The AI Model uploading process (simply)

1. Create a flask app
2. Load the model into the app (e.g. the model's .pkl or .pth file)
3. Create a route for the model (with method POST)
4. Extract the features from the request
5. Pass the features into the model
6. Return the model's output

Apps & Companies using Flutter

1. Google (e.g. Ads & Pay)
2. BMW
3. Toyota
4. Alibaba
5. Ebay
6. Delivery Hero
7. Nana نعناع
8. Drahim دراهم
9. Tabby تابي
10. Tamra Capital تمرة المالية
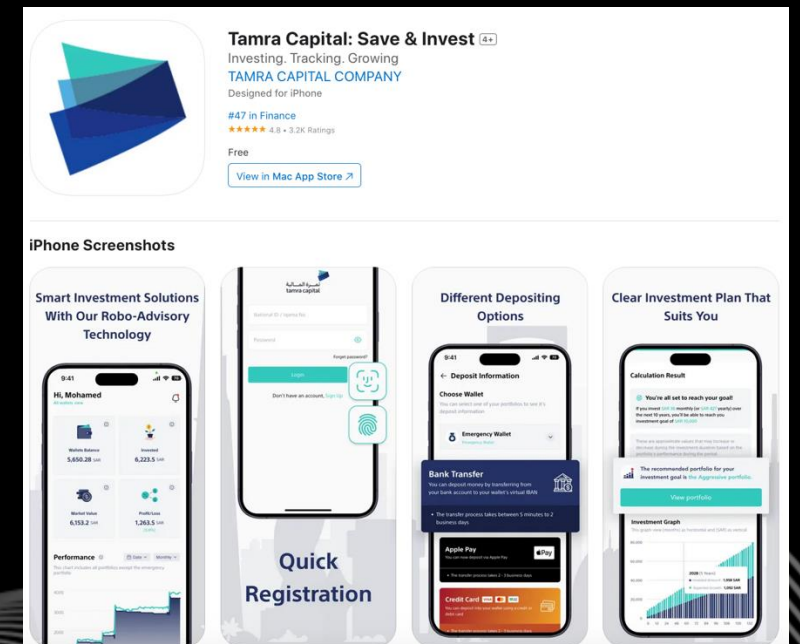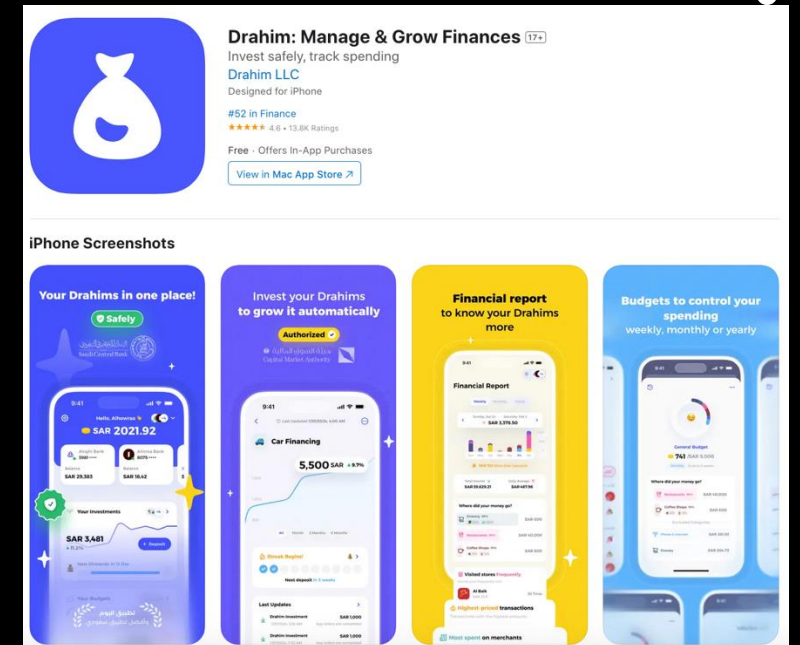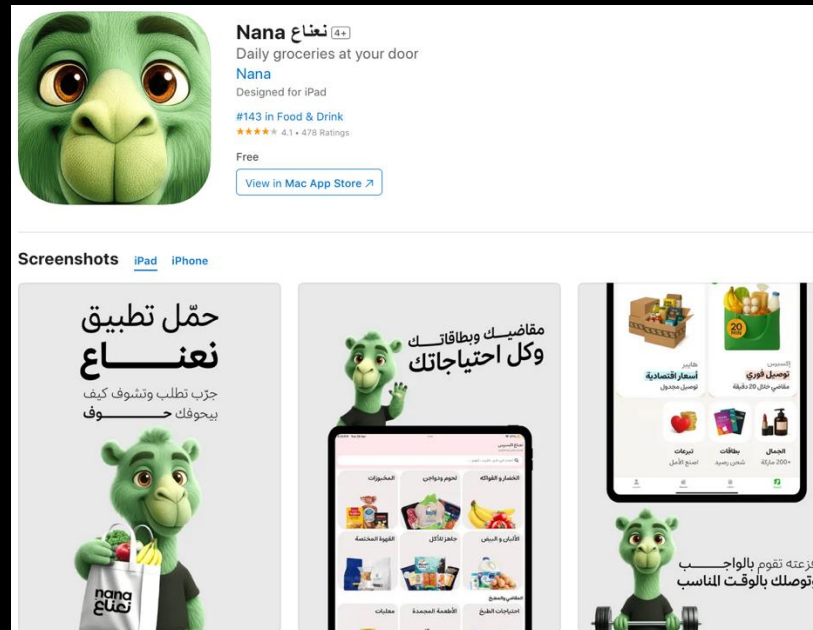
How much money do AI Integrated Mobile Apps make?
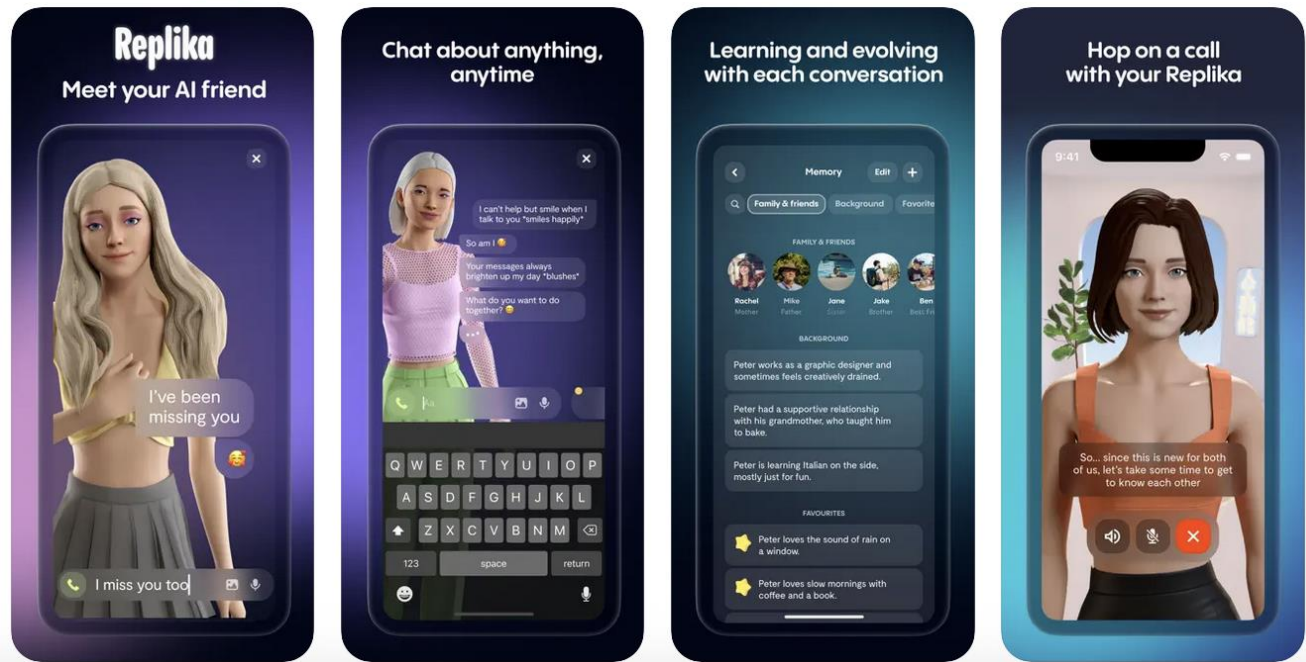
Replika:
AI Girlfriend/Boyfriend

AI Power:
- Natural Language Processing
- Sentiment analysis.

Revenue:

$5 million/month

*"He got friendzoned by
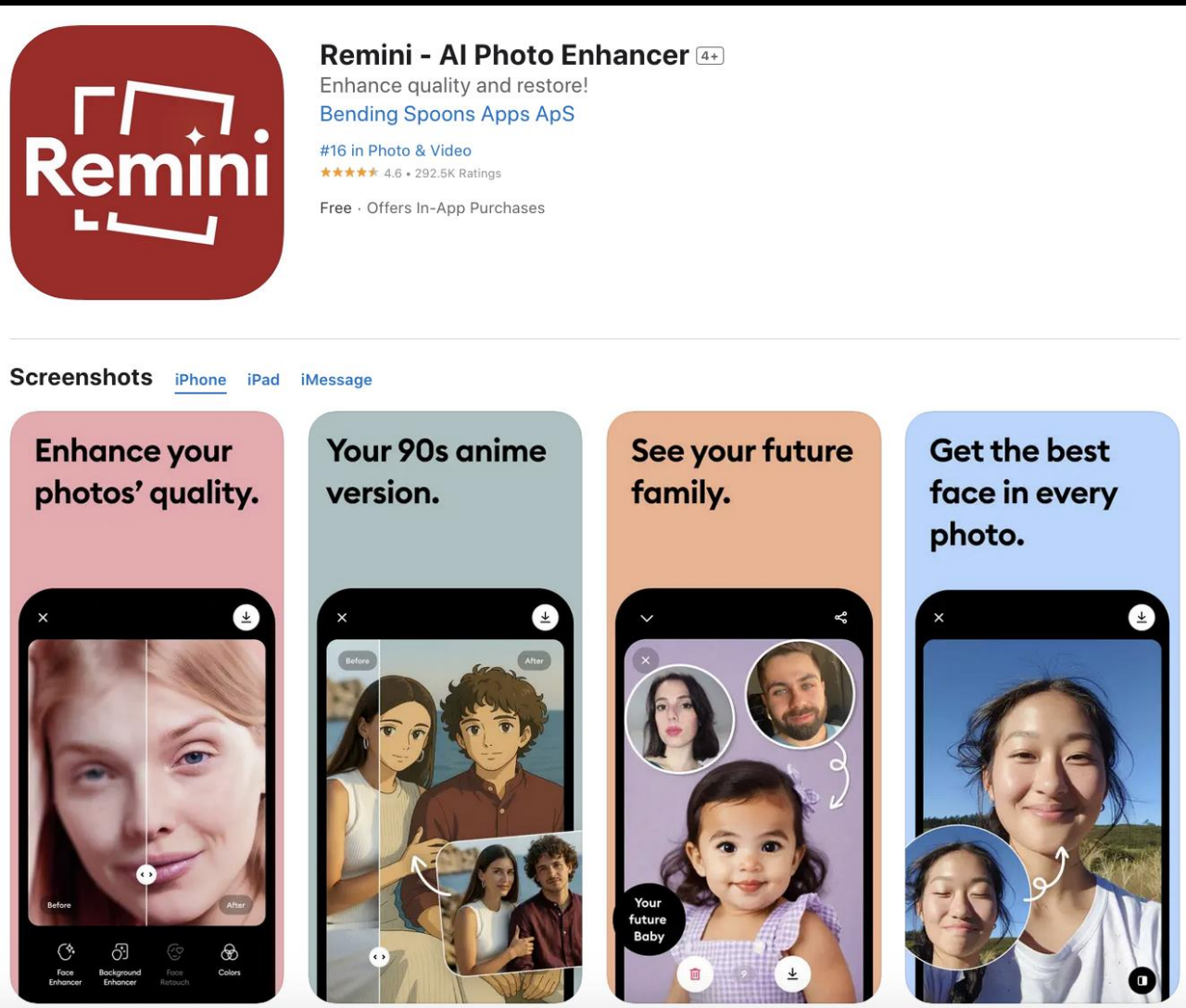an AI, and still paid 15$/month!"*

Upload selfies, and it turns them into 100+ "magical avatars"

AI Power:
- Stable Diffusion, fine-tuned image generation

Revenue:

$16M+ in one month alone after launching the avatar feature.

Uses AI to enhance blurry, pixelated, or low-res photos. Also turns your selfie into a Pixar-style cartoon or "professional headshot."

AI Power:
- GANs (Generative Adversarial Networks)
- Super-resolution models

Constantly top 10 in photos category.

Tens of millions of downloads & subscriptions.

Revenue:

They reached $2.3 million in one week, after a viral TikTok video.

TO THE LAB!