

Chapter 1: A Brief History of GUI Toolkits and Cross-Platform Development

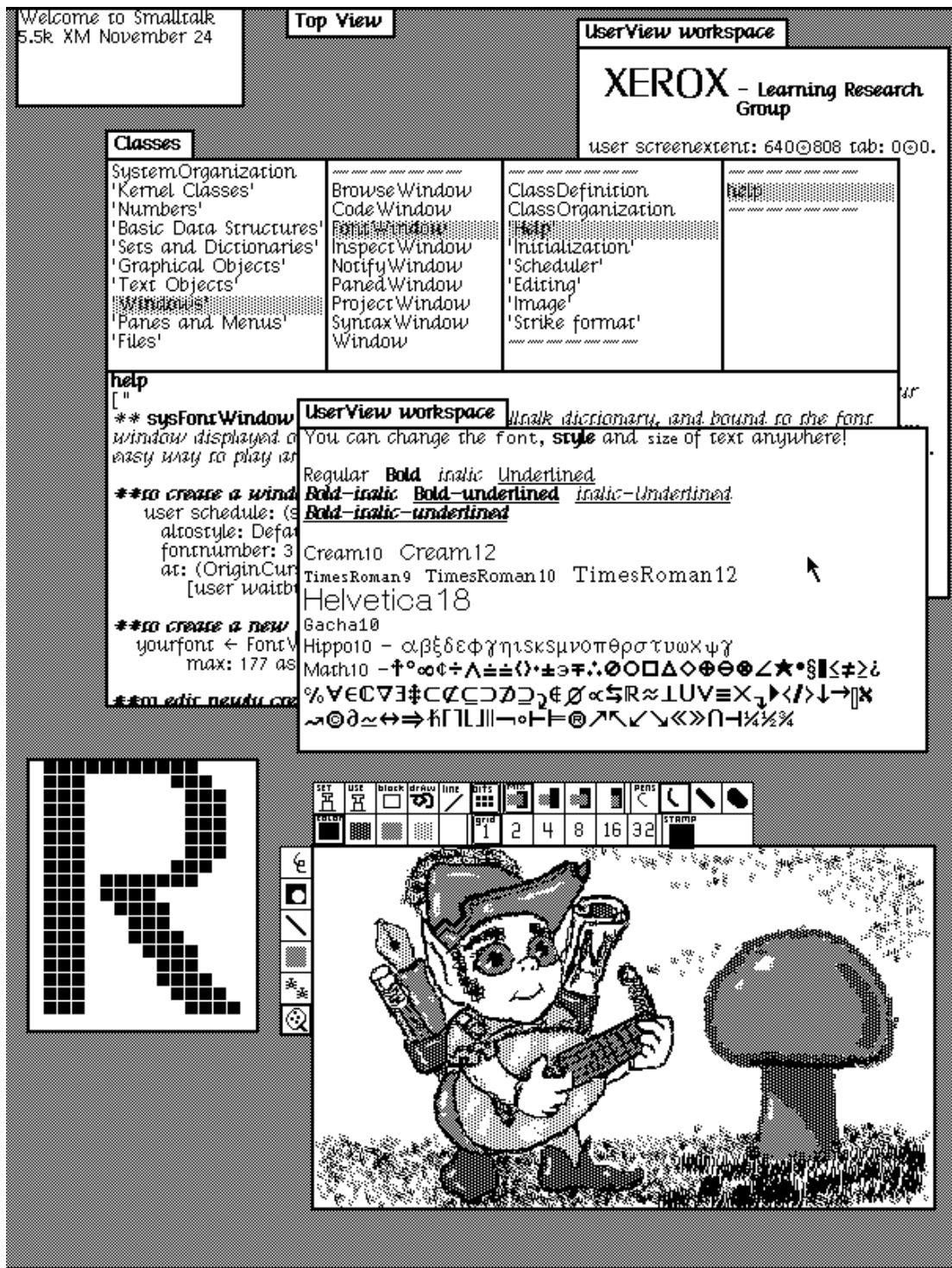




Figure 1.2 – Windows 1 (1985)

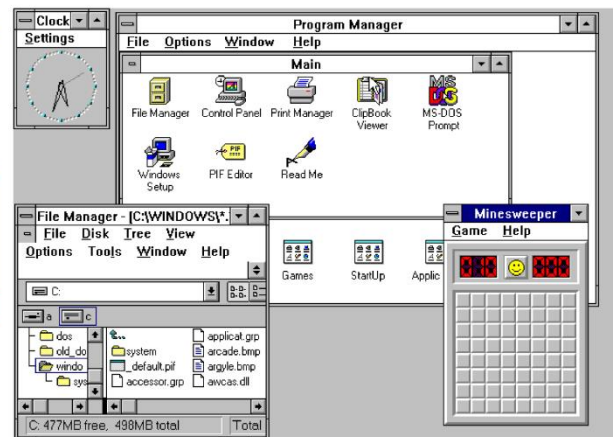


Figure 1.3 – Windows 3.11 (1993)



Figure 1.4 – Windows XP (2001)



Figure 1.5 – Windows 10 (2015)



Figure 1.6 – Atari TOS (1985), copyright Atari



Figure 1.7 – BeOS (1995), copyright Palm

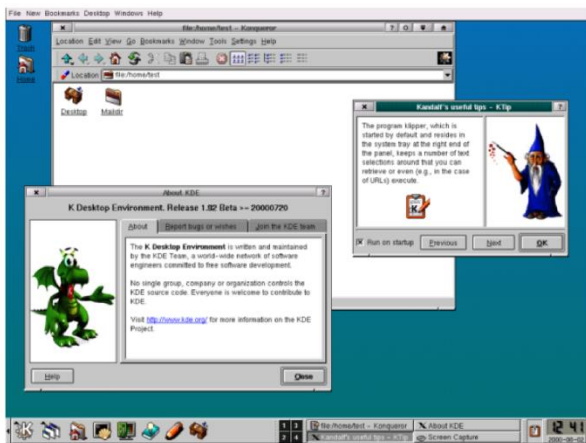


Figure 1.8 – KDE 2 (2000), copyright KDE community

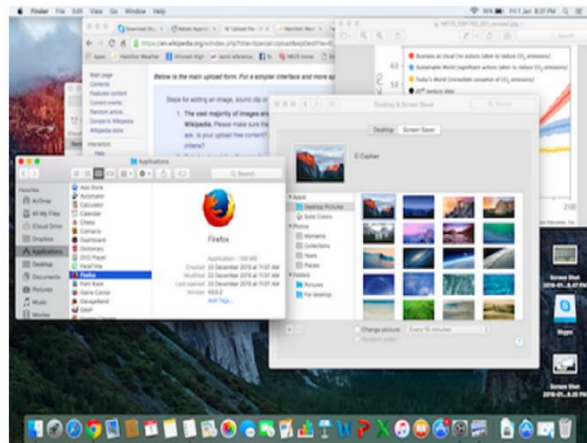


Figure 1.9 – macOS El Capitan (2015), copyright Apple

World Wide Web

The WorldWideWeb (W3) is a wide-area [hypermedia](#) information retrieval initiative aiming to give universal access to a large universe of documents.

Everything there is online about W3 is linked directly or indirectly to this document, including an [executive summary](#) of the project, [Mailing lists](#), [Policy](#), November's [W3 news](#), [Frequently Asked Questions](#).

[What's out there?](#)

Pointers to the world's online information, [subjects](#), [W3 servers](#), etc.

[Help](#)

on the browser you are using

[Software Products](#)

A list of W3 project components and their current state. (e.g. [Line Mode](#), [X11 Viola](#), [NeXTStep](#), [Servers](#), [Tools](#), [Mail robot](#), [Library](#).)

[Technical](#)

Details of protocols, formats, program internals etc

[Bibliography](#)

Paper documentation on W3 and references.

[People](#)

A list of some people involved in the project.

[History](#)

A summary of the history of the project.

[How can I help?](#)

If you would like to support the web.

[Getting code](#)

Getting the code by [anonymous FTP](#), etc.

Figure 1.10 – The first website (1991), Tim Berners Lee



Figure 1.12 – DeviantArt site (2000)



Figure 1.11 – GeoCities home page (1994)



Figure 1.13 – Bootstrap site design framework (2011)

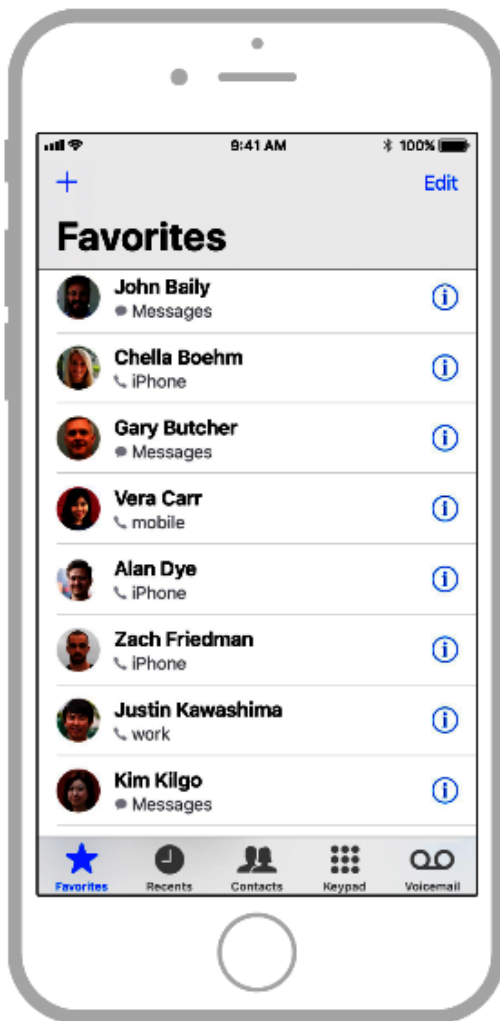


Figure 1.14 – An iPhone app, copyright Apple

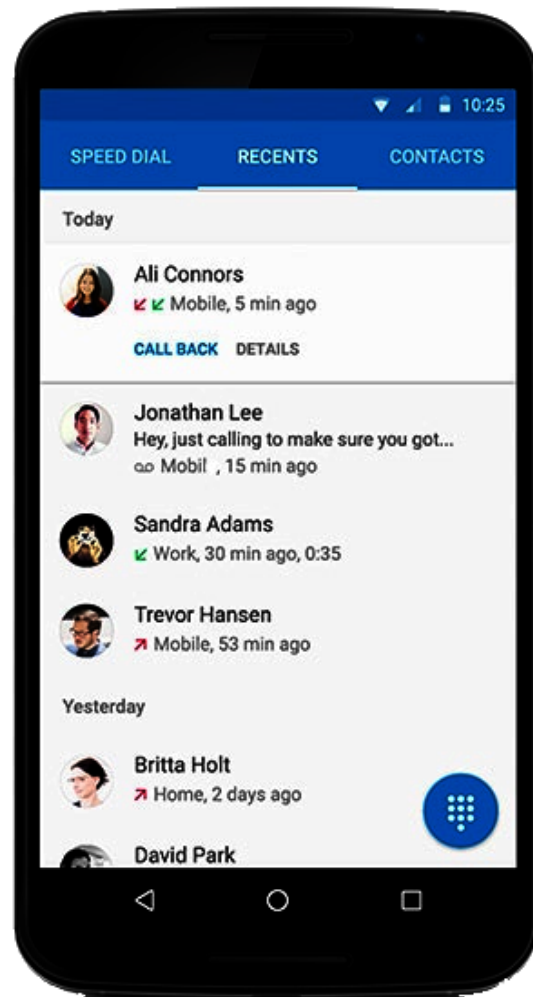


Figure 1.15 – An Android app, copyright Google

Chapter 2: The Future According to Fyne

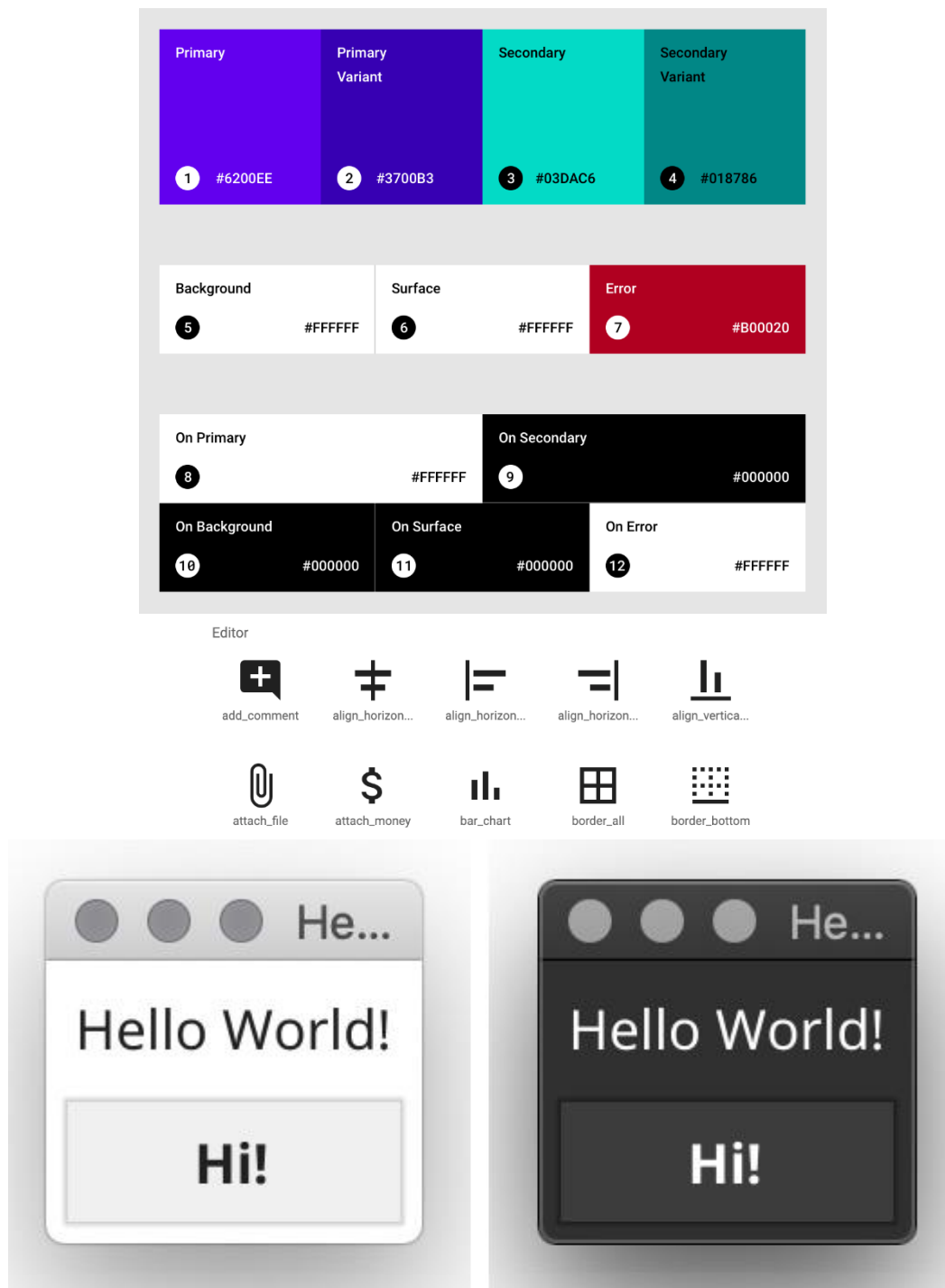
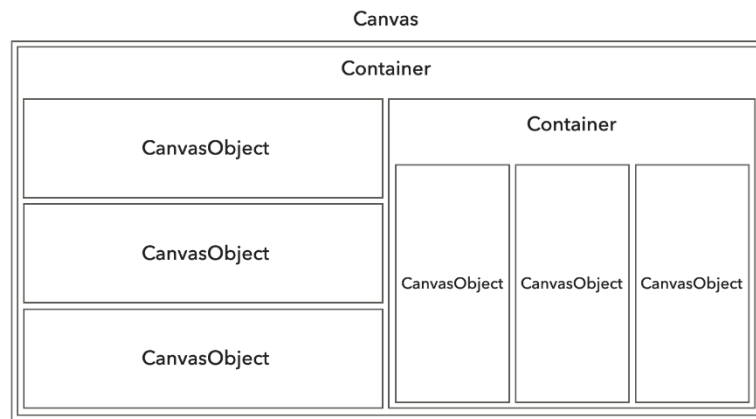
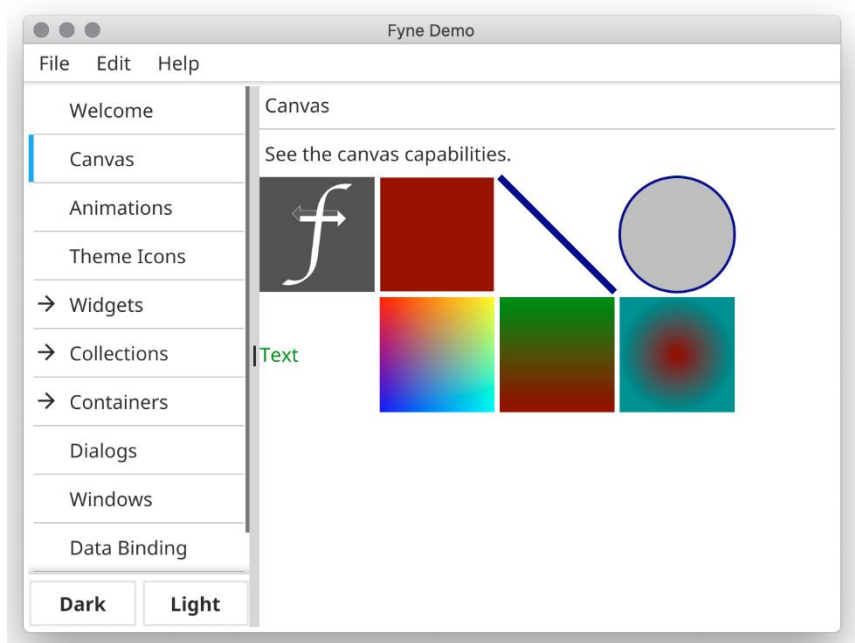
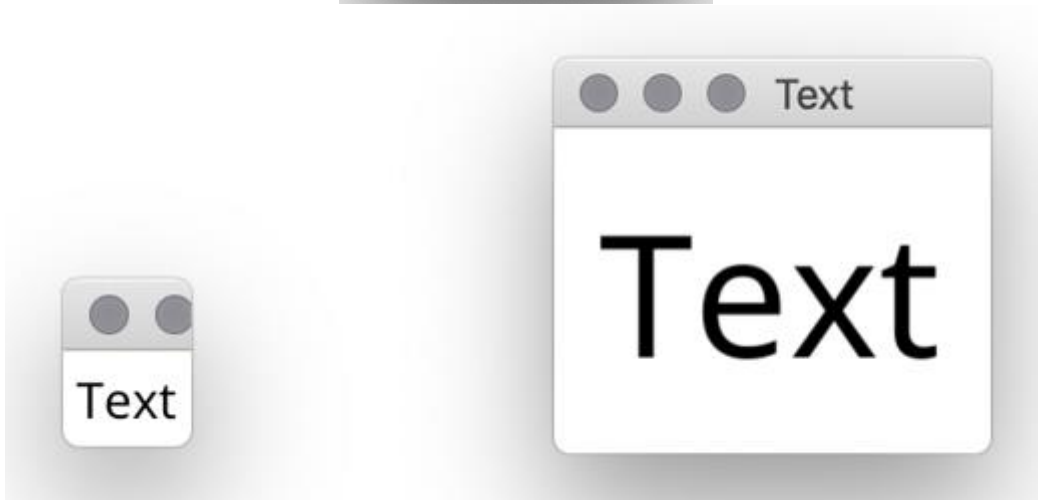


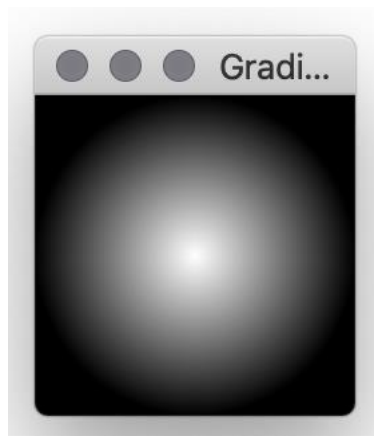
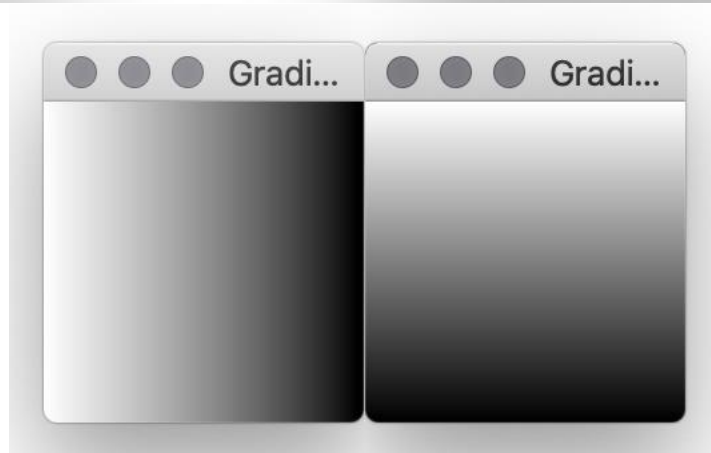
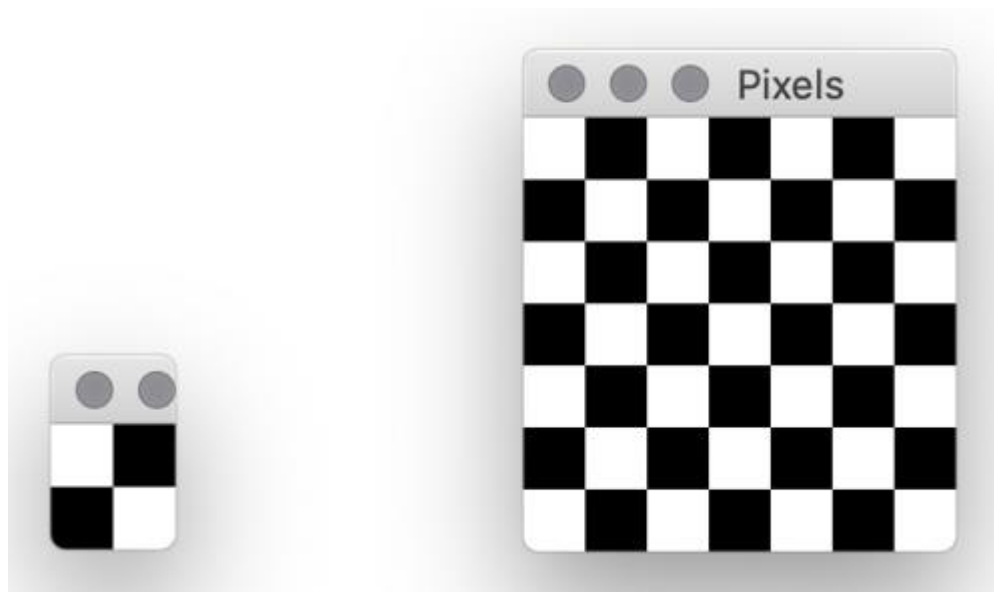
Figure 2.3 – Fyne light theme and dark theme, respectively

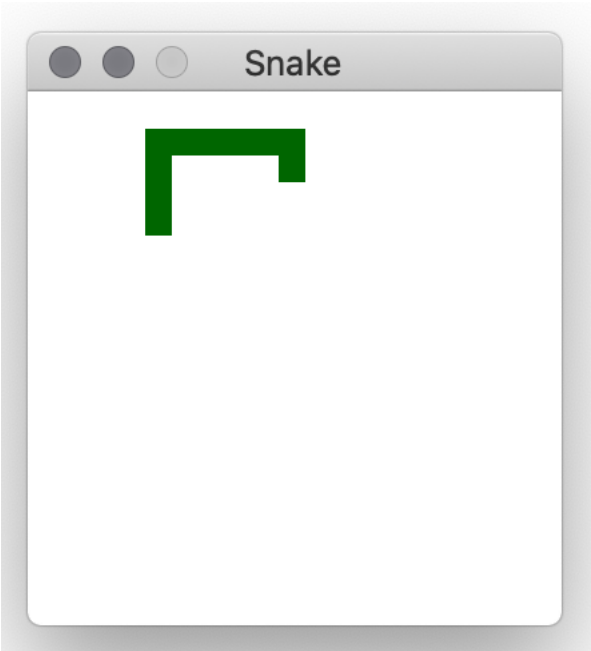
Chapter 3: Window, Canvas, and Drawing



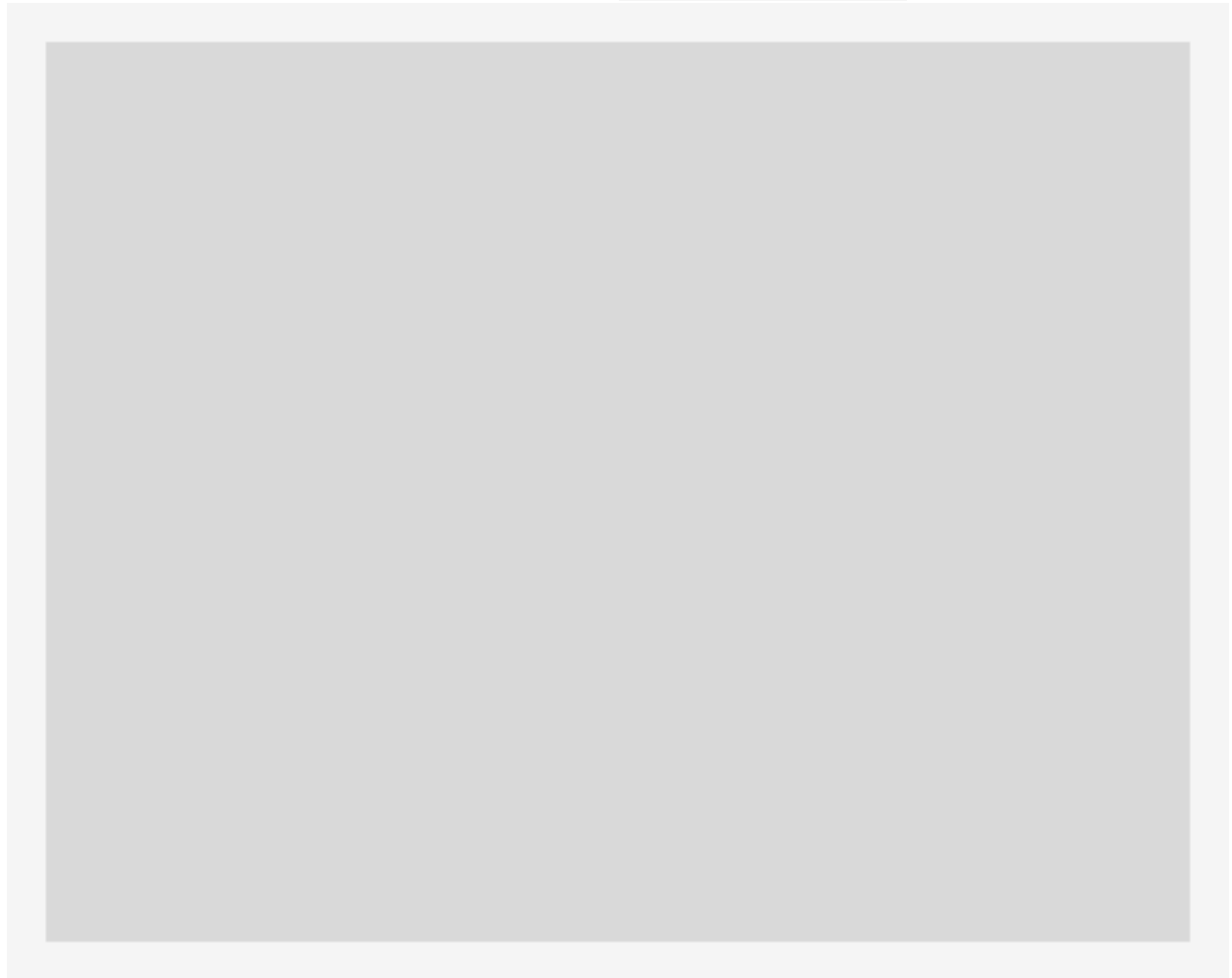
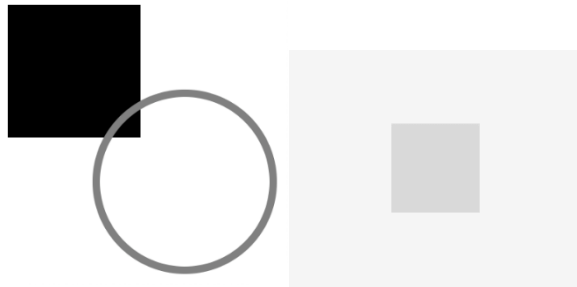








Chapter 4: Layout and File Handling







label



label



label

status

Image Browser



colour-sky.jpg

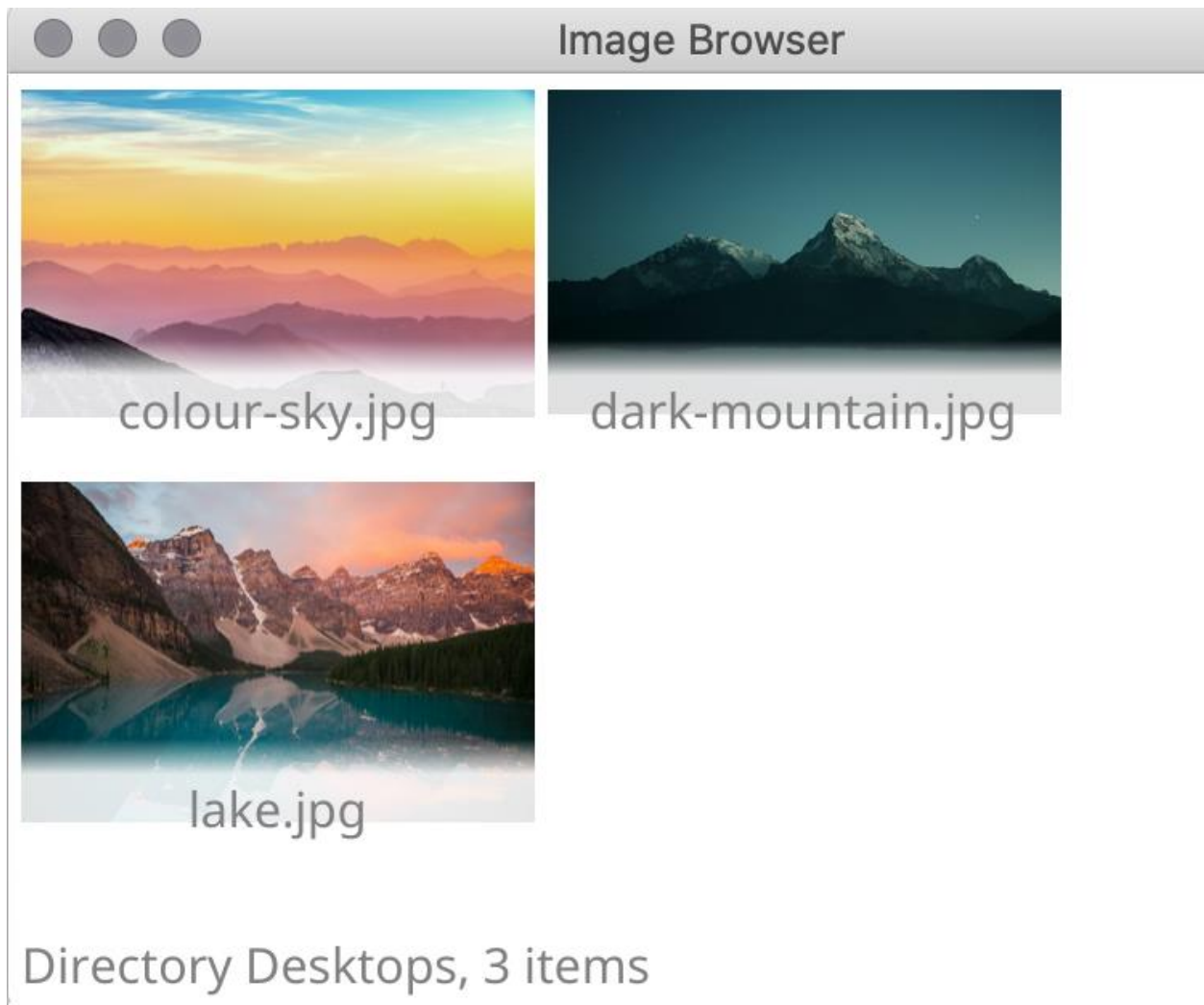


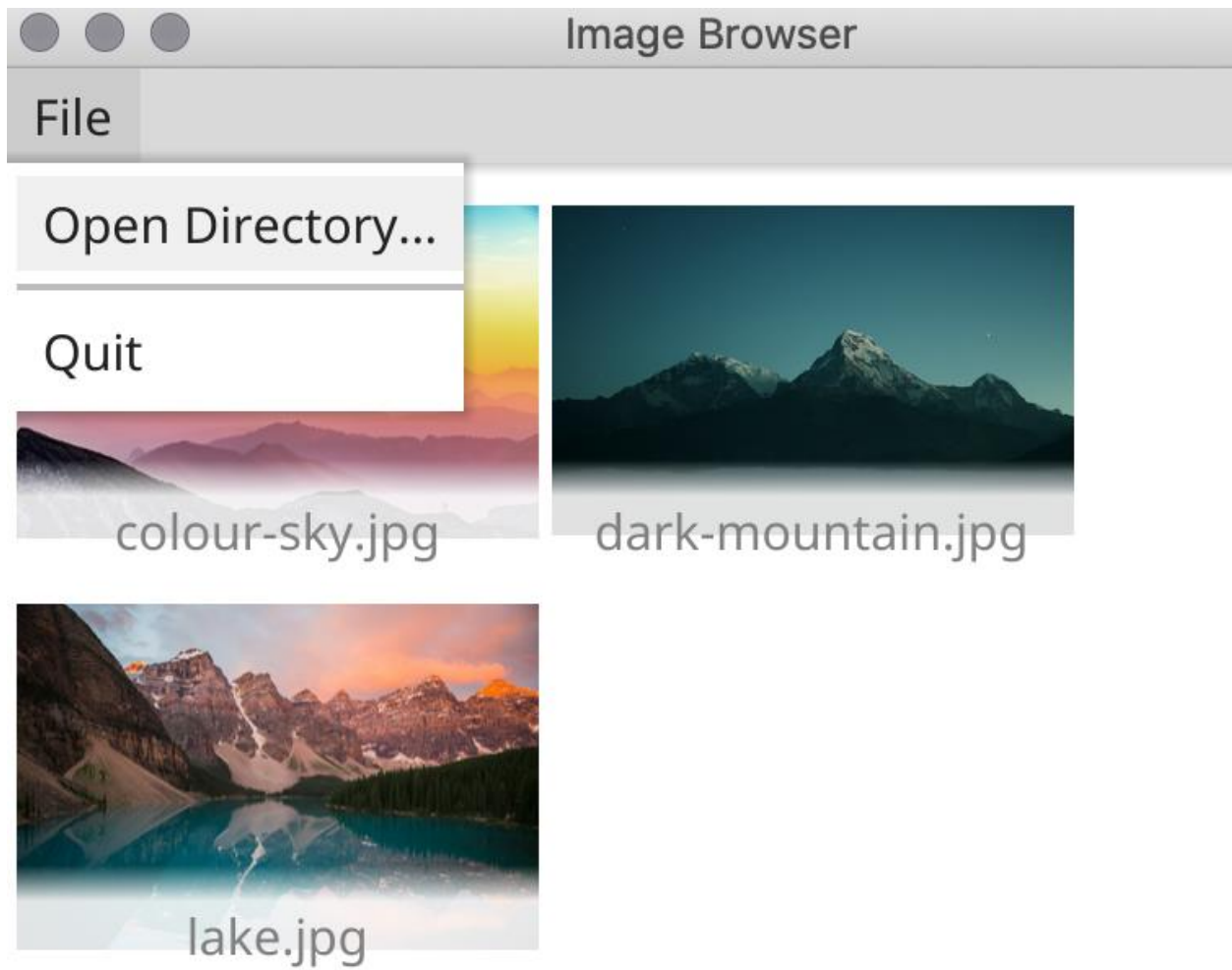
dark-mountain.jpg



lake.jpg

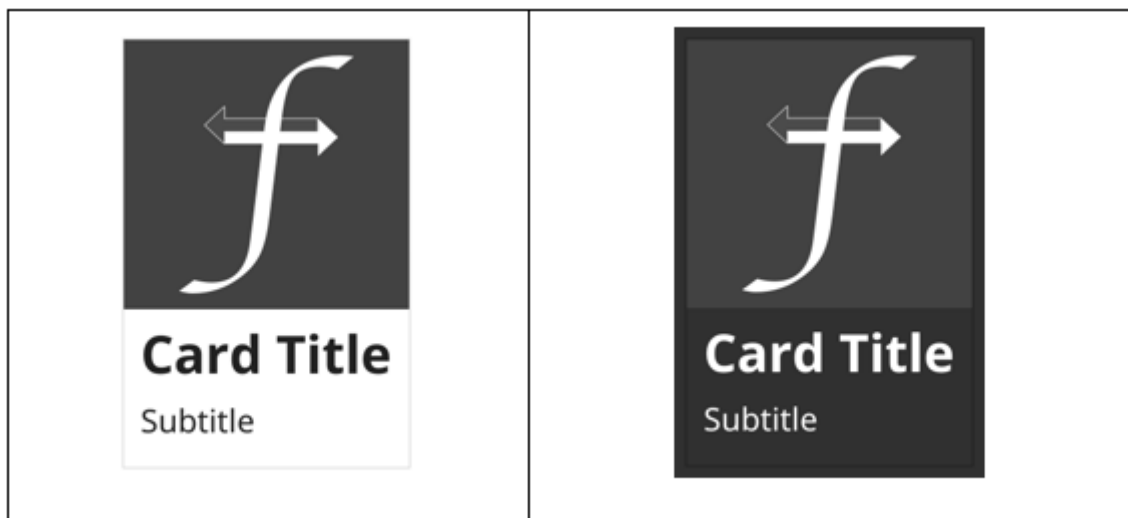
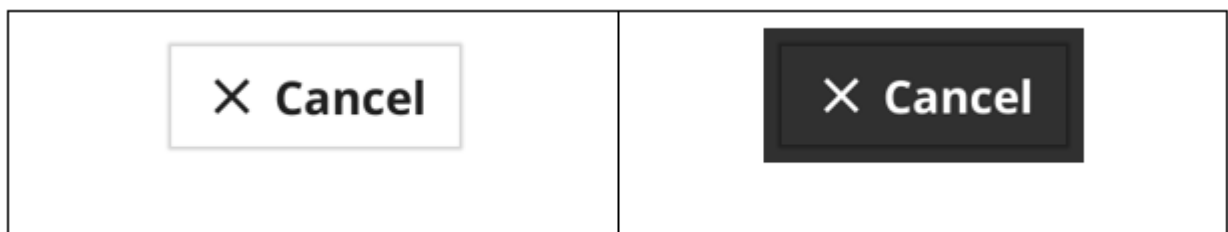
Directory Desktops, 3 items





Directory Desktops, 3 items



Chapter 5: Widget Library and Themes



<input checked="" type="checkbox"/> Check	<input type="checkbox"/> Check
---	--------------------------------

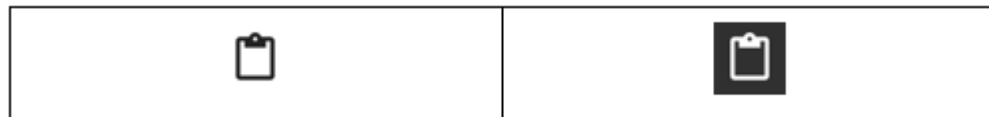
Entry <u> </u> Password <u> </u> 	Entry <u> </u> Password <u> </u> 
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<u>Valid</u> ✓	<u>Invalid</u> 
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 .png	 .png
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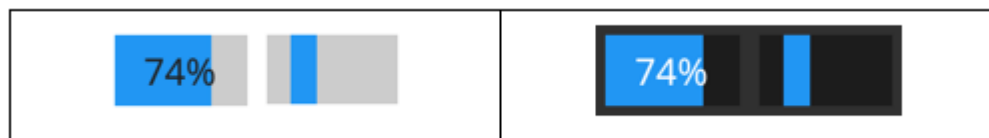
<p>Username</p> <hr/>	<p>Username</p> <hr/>
<p>Password</p> <hr/>	<p>Password</p> <hr/>
<p>✕ Cancel</p>	<p>✕ Cancel</p>
<p>✓ Submit</p>	<p>✓ Submit</p>

<p>fyne.io</p>	<p>fyne.io</p>
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<p>Text label</p>	<p>Text label</p>
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- | | |
|-----------------------------|-----------------------------|
| <p>Item 1</p> <p>Item 2</p> | <p>Item 1</p> <p>Item 2</p> |
|-----------------------------|-----------------------------|



- | | |
|--|--|
| <p><input checked="" type="radio"/> Item 1</p> <p><input type="radio"/> Item 2</p> | <p><input checked="" type="radio"/> Item 1</p> <p><input type="radio"/> Item 2</p> |
|--|--|

(Select one) ▼

(Select one) ▼

Select one or type ▼

Select one or type ▼



1 | TextGrid
2 | Content

1 | TextGrid
2 | Content

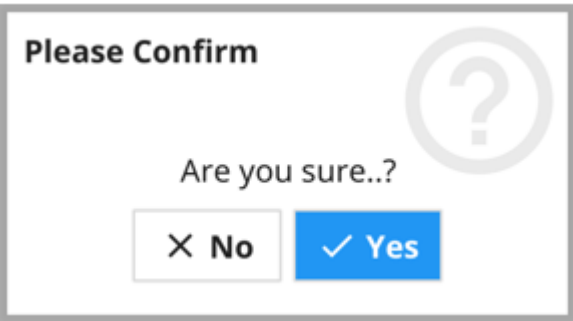
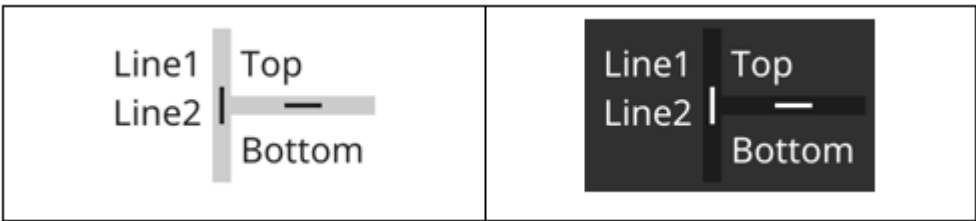
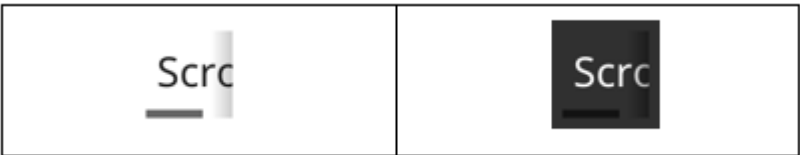
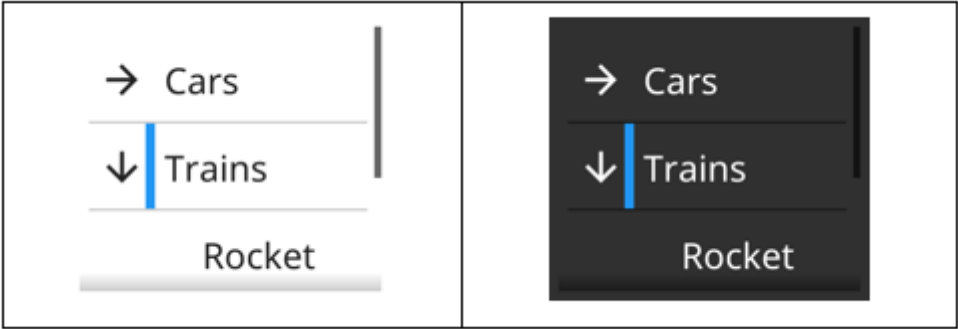


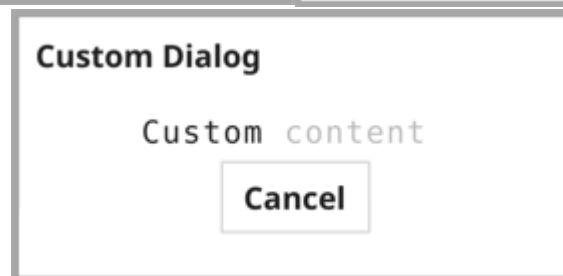
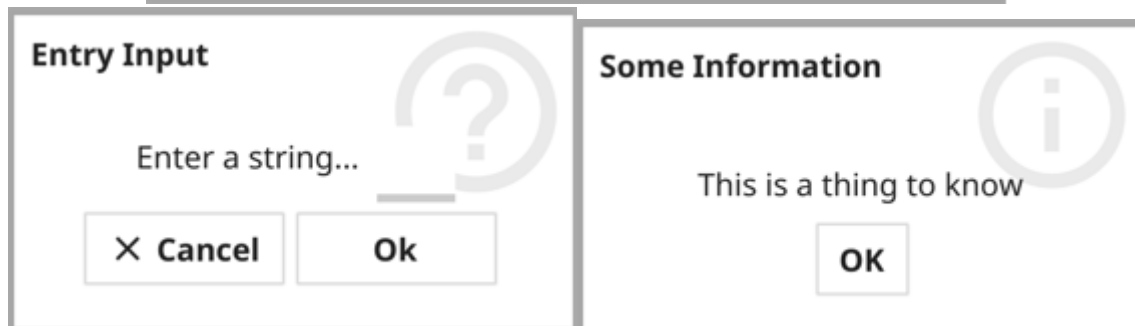
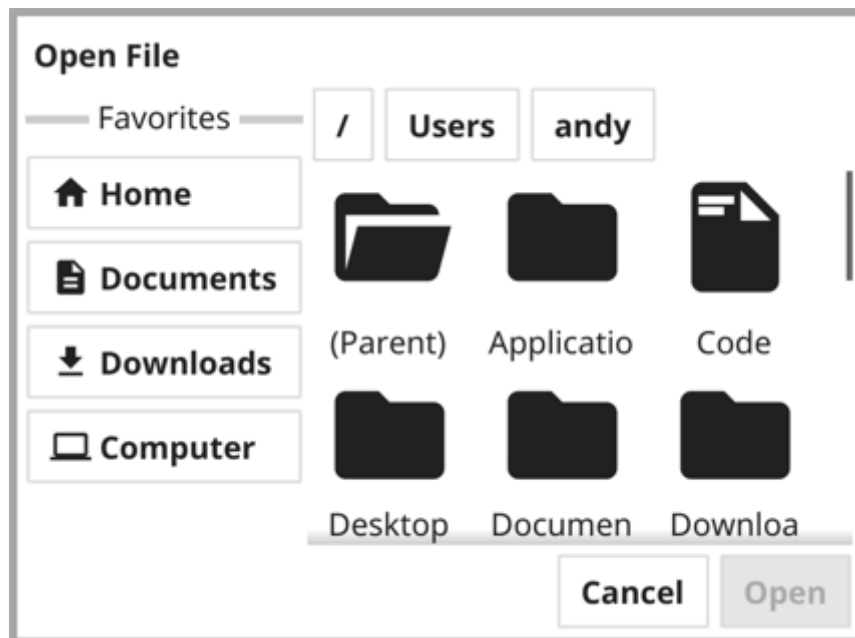
List item 1
List item 2
List item 3

List item 1
List item 2
List item 3

Cell 1, 1	Cell 1,
Cell 2, 1	Cell 2,
Cell 3, 1	Cell 3,

Cell 1, 1	Cell 1,
Cell 2, 1	Cell 2,
Cell 3, 1	Cell 3,





Welcome

Canvas

Animations

Theme Icons

↓ Widgets

Accordion

Button

Card

Entry

Form

Input

Dark

Light

Form

Gathering input widgets for data submission.

Name

John Smith

Email

test@example.com

✓

Password

Password

👁

Message

✕ Cancel

✓ Submit

Welcome

Canvas

Animations

Theme Icons

↓ Widgets

Accordion

Button

Card

Entry

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Input

Dark

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Form

Gathering input widgets for data submission.

Name

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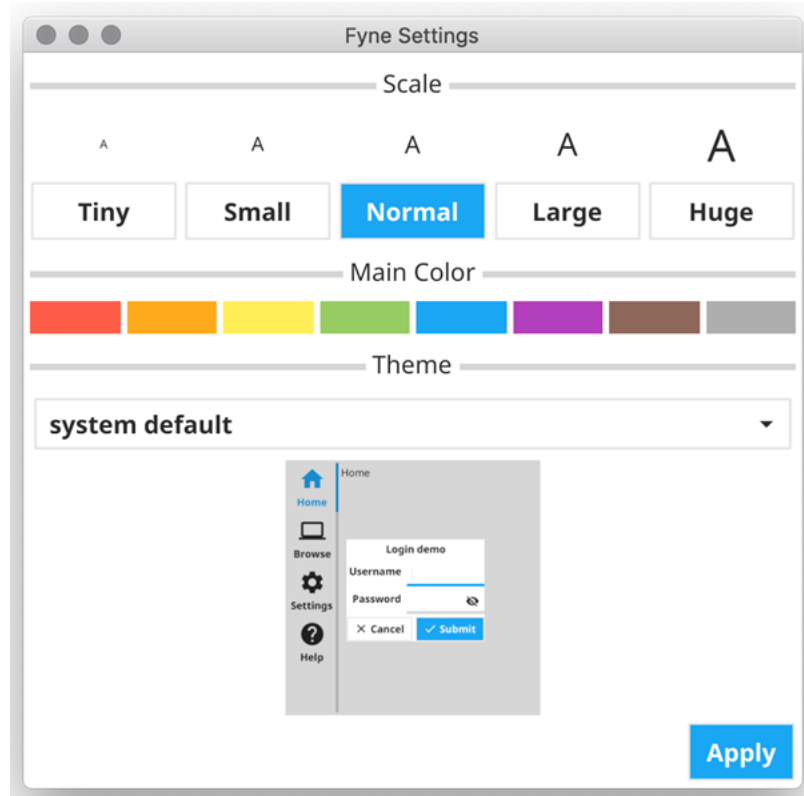
Password

👁

Message

✕ Cancel

✓ Submit



Editor



add_comment



align_horizon...



align_horizon...



align_horizon...



align_vertica...



attach_file



attach_money



bar_chart



border_all



border_bottom

BBC Emulator



BBC Computer 65184K

Linux DFS

BASIC

```
>10 REM A simple program
>20 FOR X=1 TO 3
>30   PRINT "Hello " X
>40 NEXT X
>50 PRINT "Fyne!"
>RUN
Hello 1
Hello 2
Hello 3
Fyne!
>_
```



×

−

⌵

Task List

+

☐ Nearly done

☐ Functions

Title

Description

Category

Priority

Due

Completion

(Select one) ▾

☐ Low

☐ Mid

☐ High

Task List

+

☐

Nearly done

☐

Functions

Title

Nearly done

Description

You can tick my checkbox and I will be marked as done and disappear

Category

(Select one)

Priority

☒ Low

☐ Mid

☐ High

Due

Completion

Task List

+

Nearly done

Title

Nearly done

Functions

Description

You can tick my checkbox and I will be marked as done and disappear

Category

(Select one) ▼

Priority

☒ Low

☐ Mid

☐ High

Due

Completion

Chapter 6: Data Binding and Storage

W...

50%

Set to 0.5

Water Tracker

0ml

Mon 9 Nov 2020

250

ml

Add

History

Totals this week

Monday	0ml
Tuesday	0ml
Wednesday	0ml
Thursday	0ml
Friday	0ml
Saturday	0ml
Sunday	0ml

750ml

Mon 9 Nov 2020

250

ml

Add

Water Tracker

1000ml

Fri Nov 13 2020

250

ml

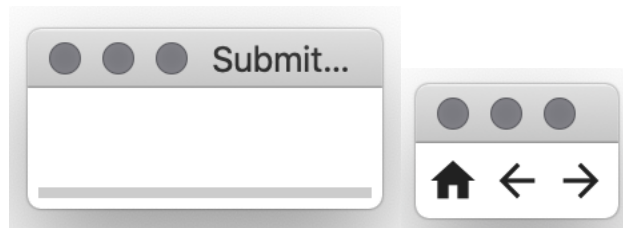
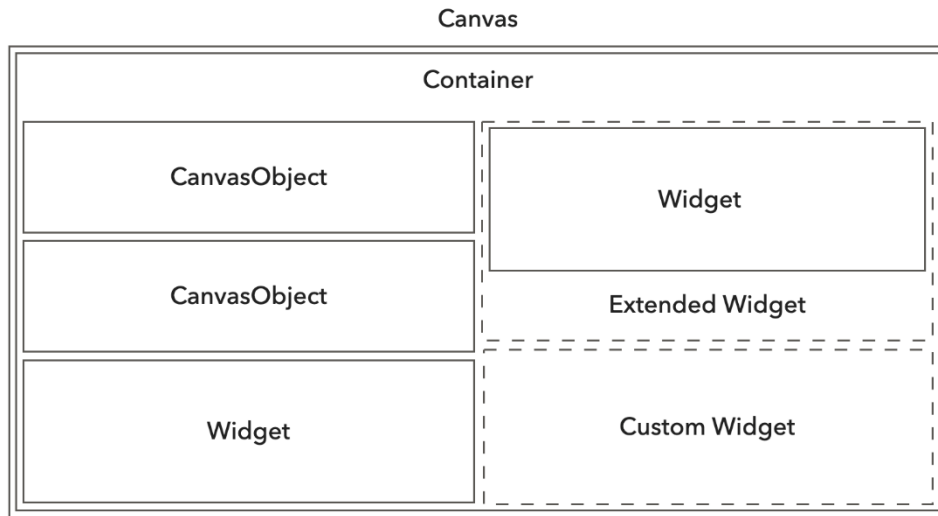
Add

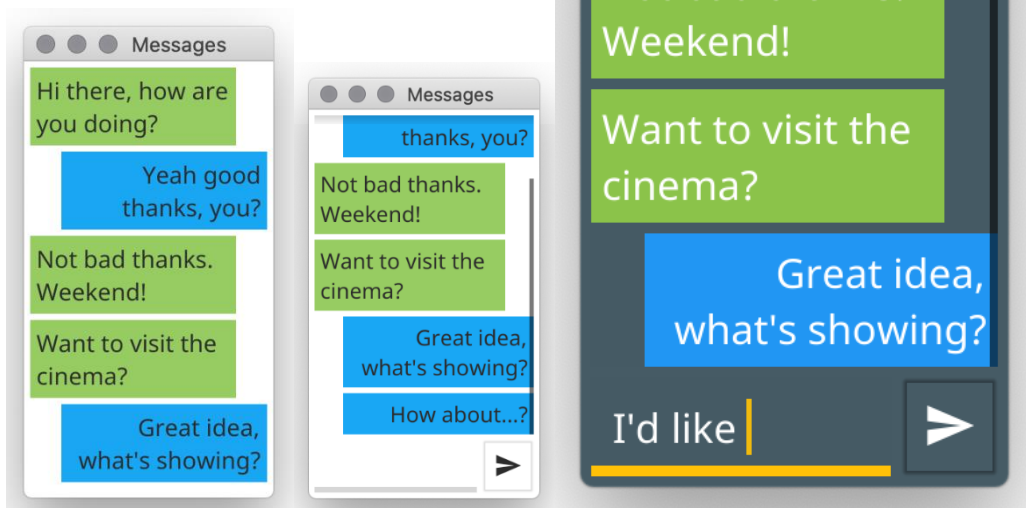
History

Totals this week

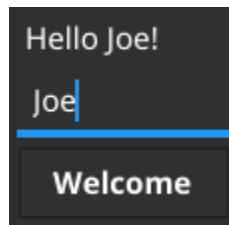
Monday	1500ml
Tuesday	1250ml
Wednesday	750ml
Thursday	1750ml
Friday	1000ml
Saturday	0ml
Sunday	0ml

Chapter 7: Building Custom Widgets and Themes

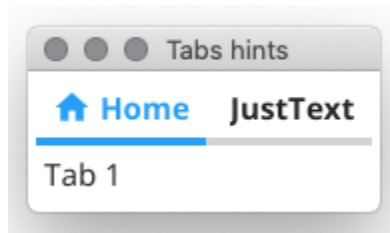




Chapter 8: Project Structure and Best Practices



Chapter 9: Bundling Resources and Preparing for Release



Icon.png



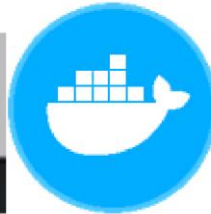
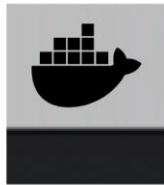
main.go



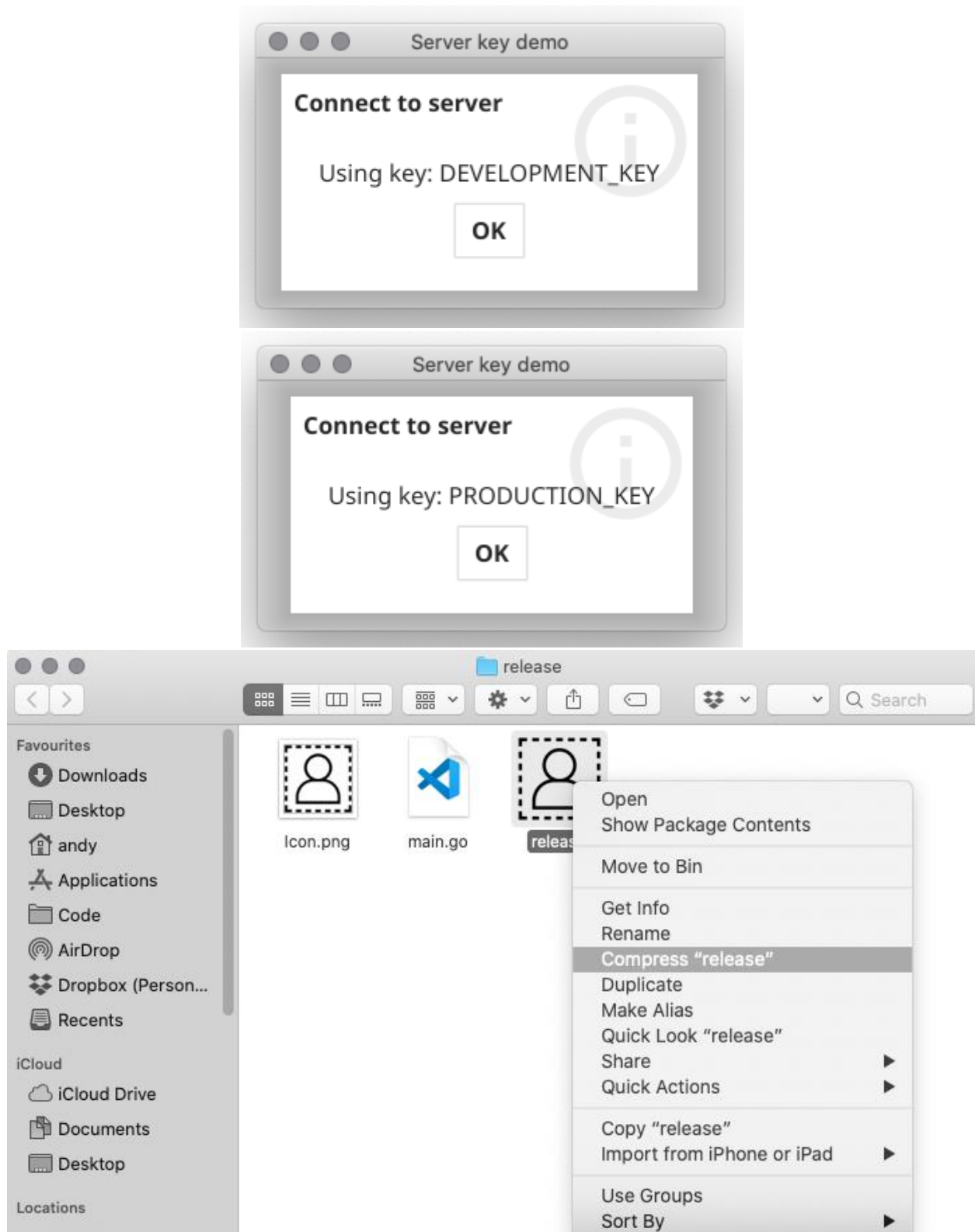
package



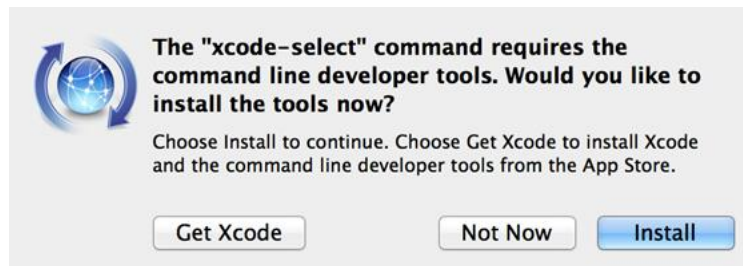
package



Chapter 10: Distribution – App Stores and Beyond



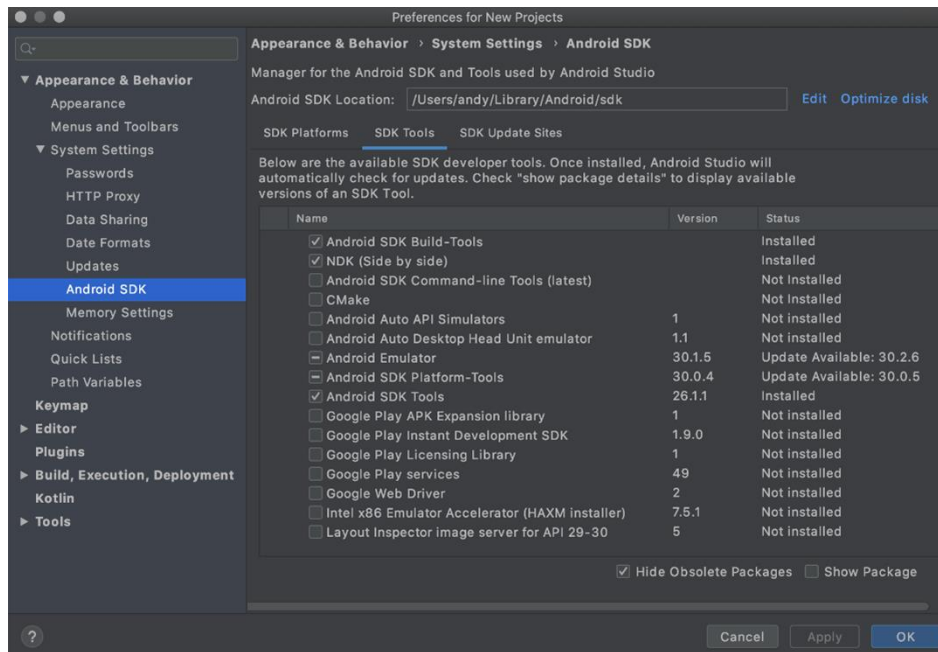
Appendix A: Developer Tool Installation



```
Andy@DESKTOP-G509CRT MINGW64 ~
$ pacman -S git mingw-w64-x86_64-go mingw-w64-x86_64-toolchain mingw-w64-x86_64-
pkg-config
warning: git-2.29.2-1 is up to date -- reinstalling
warning: mingw-w64-x86_64-go-1.14.4-1 is up to date -- reinstalling
:: There are 18 members in group mingw-w64-x86_64-toolchain:
:: Repository mingw64
 1) mingw-w64-x86_64-binutils  2) mingw-w64-x86_64-crt-git
 3) mingw-w64-x86_64-gcc      4) mingw-w64-x86_64-gcc-ada
 5) mingw-w64-x86_64-gcc-fortran 6) mingw-w64-x86_64-gcc-libgfortran
 7) mingw-w64-x86_64-gcc-libs  8) mingw-w64-x86_64-gcc-objc
 9) mingw-w64-x86_64-gdb      10) mingw-w64-x86_64-gdb-multiarch
11) mingw-w64-x86_64-headers-git 12) mingw-w64-x86_64-libmangle-git
13) mingw-w64-x86_64-libwinpthread-git 14) mingw-w64-x86_64-make
15) mingw-w64-x86_64-pkg-config 16) mingw-w64-x86_64-tools-git
17) mingw-w64-x86_64-winpthread-git
18) mingw-w64-x86_64-winstorecompat-git

Enter a selection (default=all): |
```


Appendix B: Installing Mobile Build Tools



Appendix C: Cross-Compiling

No images...

