



CCE60220

Perangkat Bergerak (TKOM)

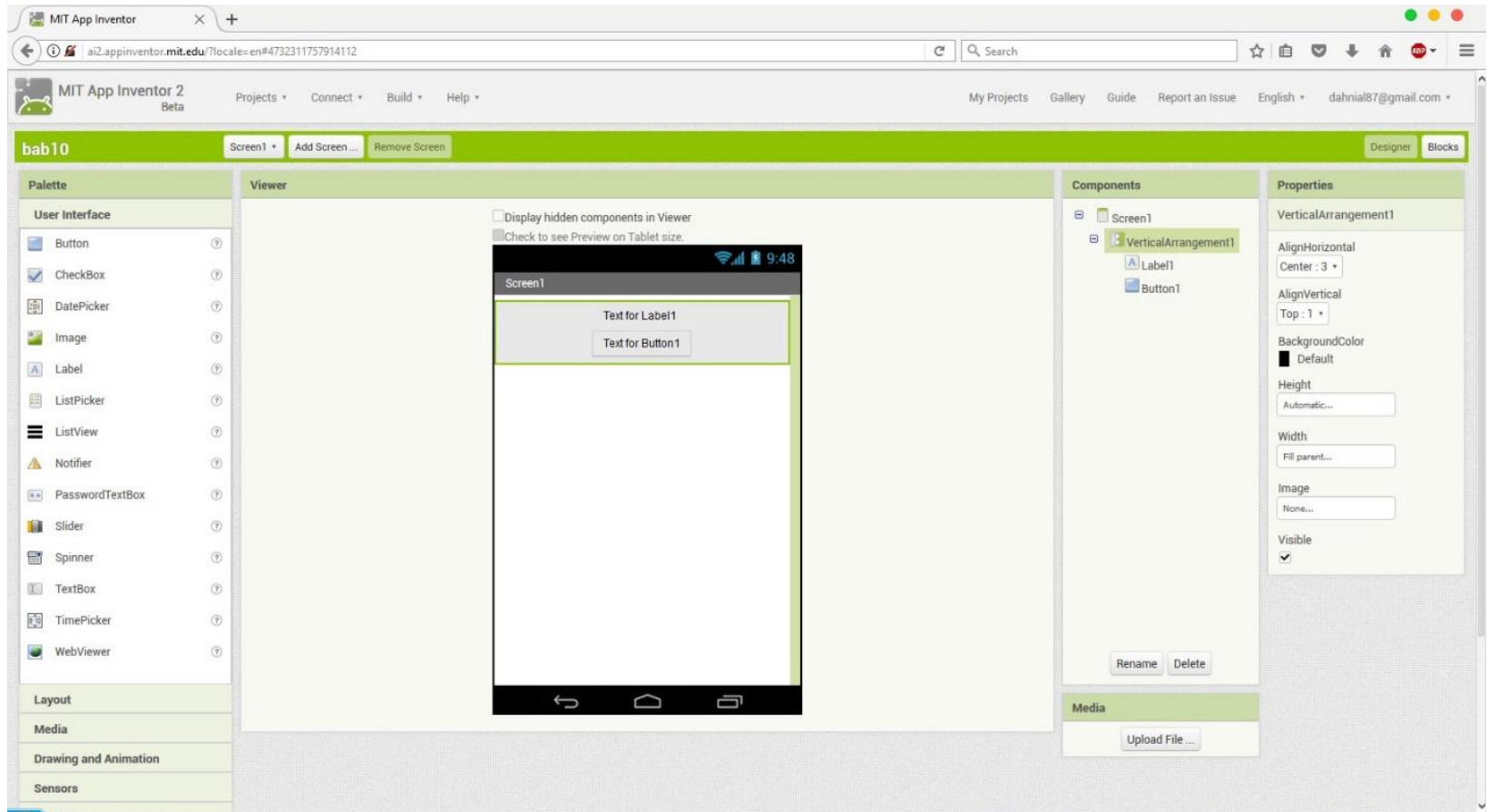


Fakultas Ilmu Komputer Universitas Brawijaya

Agenda Perkuliahan

1. ~~Intro dan overview perkuliahan~~
2. ~~Sejarah dan perkembangan teknologi perangkat bergerak~~
3. ~~Komponen perangkat keras dan perangkat lunak~~
4. ~~Pengenalan dan instalasi android studio serta aplikasi sederhana~~
5. ~~Intent dan passing data pada Android Studio~~
6. ~~Android Studio: Sensor reading~~
7. ~~Android Studio: Storage & shared preference~~
8. =====**UTS**
9. ~~Pengenalan dan aplikasi sederhana dengan MIT AppInventor~~
10. Appinventor: variable, conditional, tinyDB, file
11. appInventor: sensor reading & **persiapan project**
12. Appinventor: Akuisisi gambar dan suara
13. Appinventor: komunikasi bluetooth
14. Appinventor: basic animation
15. **Presentasi kelompok**
16. =====**UAS**

-
- **Using Variables**
 - **Using multiscreen**
 - **Using TinyDB**
 - **Saving File**
-



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bab10 Screen1 Add Screen ... Remove Screen Designer Blocks

Palette

User Interface

- Button
- CheckBox
- DatePicker
- Image
- Label
- ListPicker
- ListView
- Notifier
- PasswordTextBox
- Slider
- Spinner
- TextBox
- TimePicker
- WebView

Layout

Media

Drawing and Animation

Sensors

Viewer

☐ Display hidden components in Viewer
☐ Check to see Preview on Tablet size.

Screen1

score

increment score

Components

- Screen1
 - VerticalArrangement1
 - Label1
 - Button1

Rename Delete

Media

Upload File ...

Properties

Screen1

AboutScreen

AlignHorizontal
Left : 1

AlignVertical
Top : 1

AppName
bab10

BackgroundColor
White

BackgroundImage
None...

CloseScreenAnimation
Default

Icon
None...

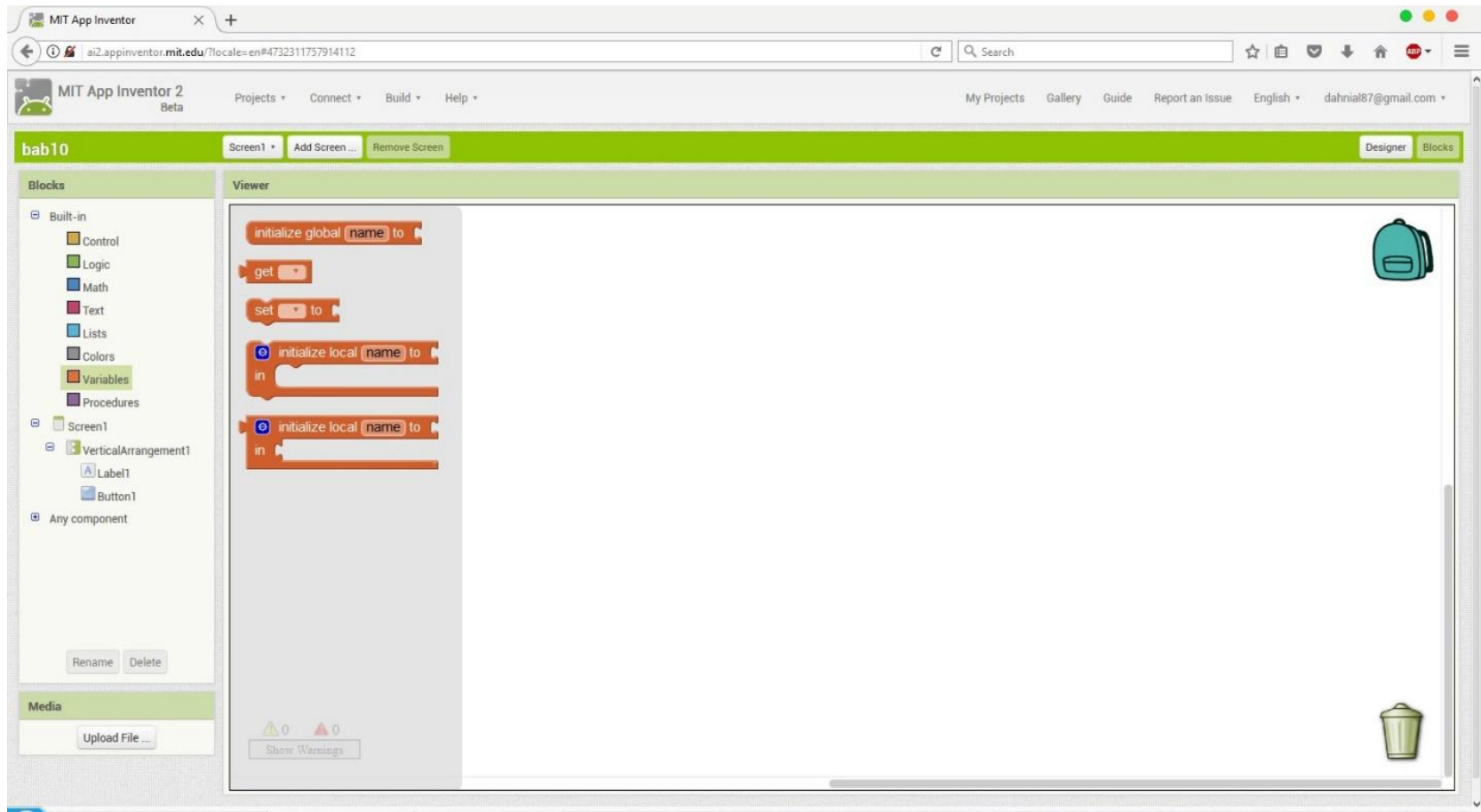
OpenScreenAnimation
Default

ScreenOrientation
Unspecified

Scrollable
☐

ShowStatusBar
☒

Using Variables

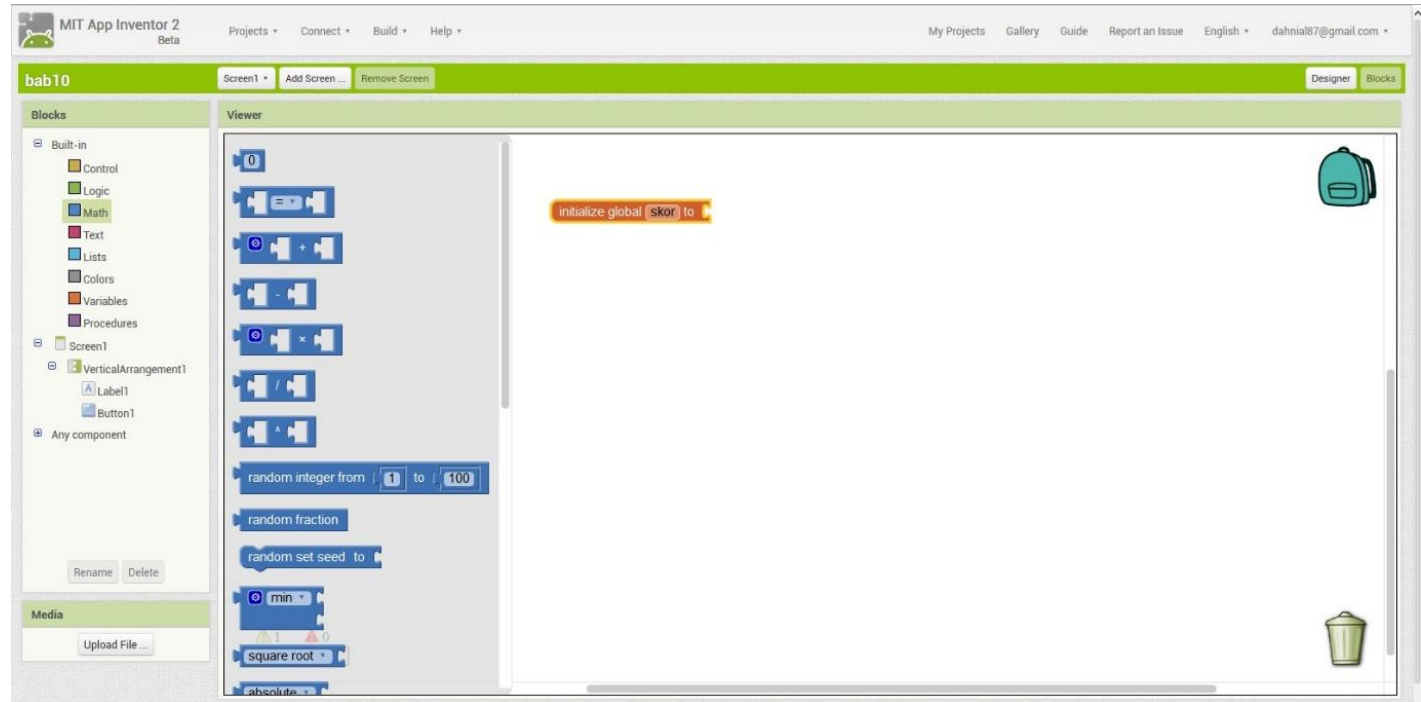


initialize global **name** to

initialize global **skor** to

initialize global **skor** to 0

initialize global **skor** to 1



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bab10 Screen1 ▾ Add Screen ... Remove Screen Designer Blocks

Blocks

- Built-in
 - Control
 - Logic
 - Math
 - Text
 - Lists
 - Colors
 - Variables
 - Procedures
- Screen1
 - VerticalArrangement1
 - Label1
 - Button1
- Any component

Rename Delete

Media

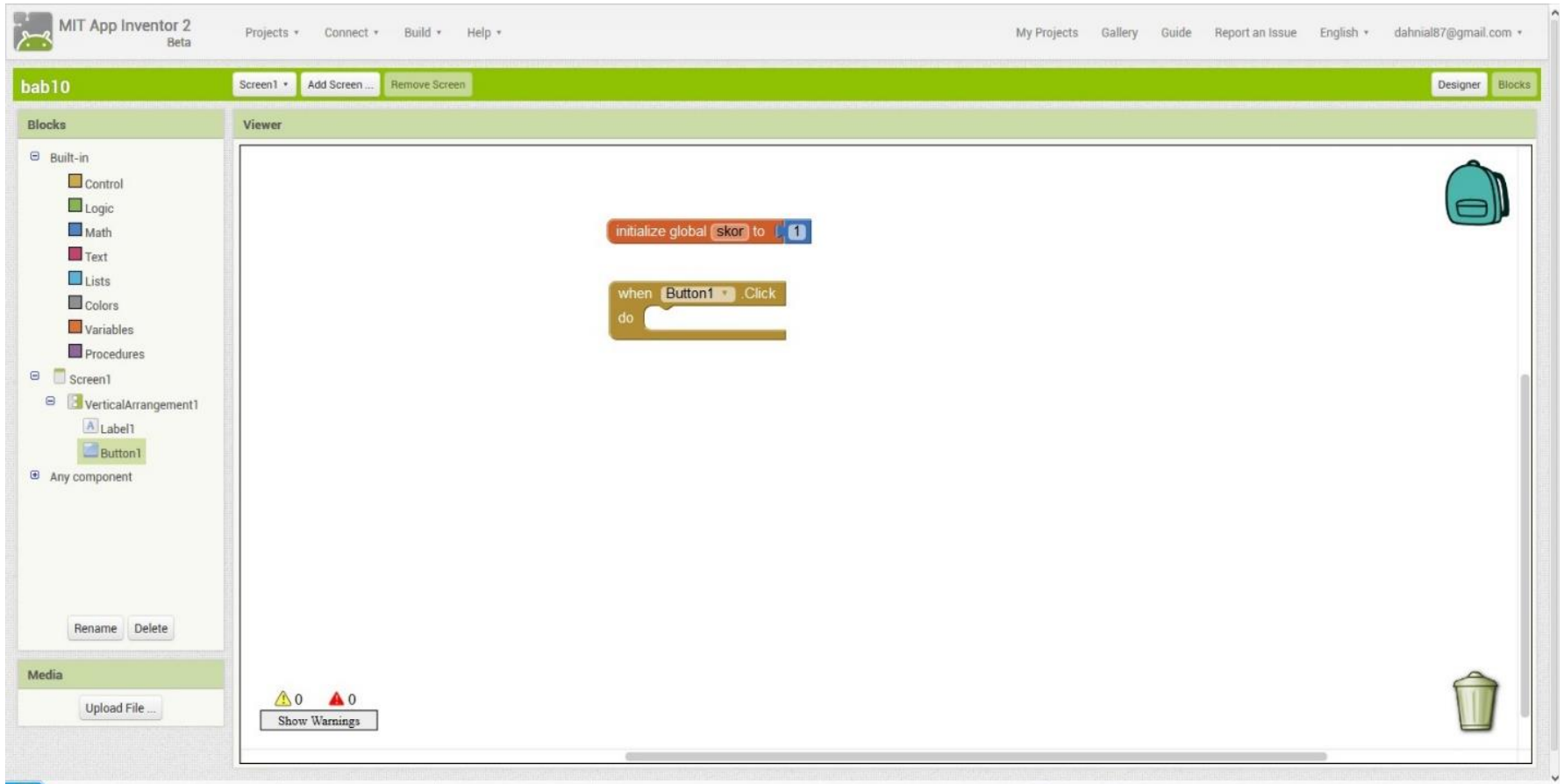
Upload File ...

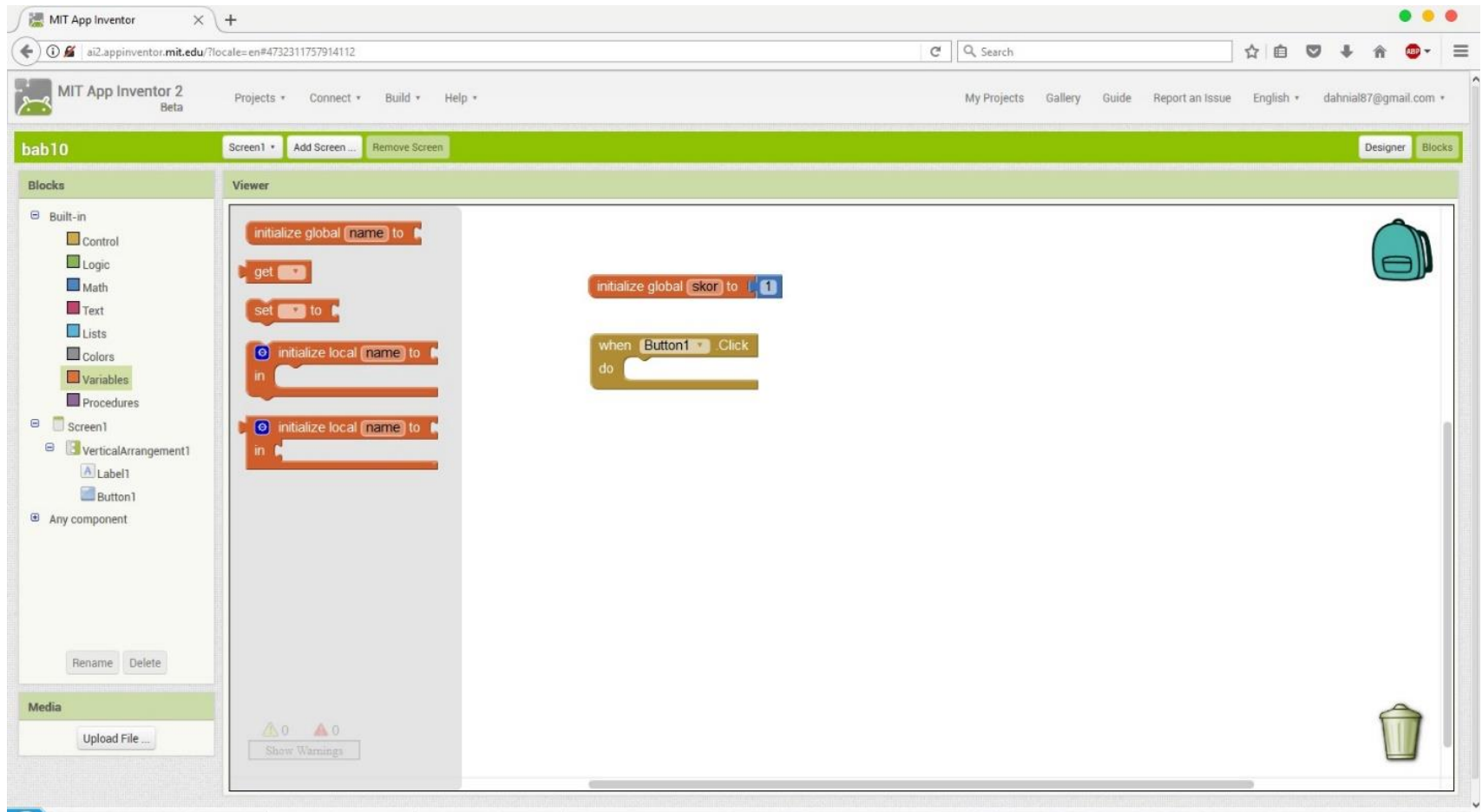
Viewer

initialize global skor to 1

when Button1 Click do

0 0
Show Warnings





initialize global skor to 1

when Button1 .Click
do set to
global skor

initialize global skor to 1

when Button1 .Click
do set global skor to

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bab10 Screen1 ▾ Add Screen ... Remove Screen Designer Blocks

Blocks

- Built-in
 - Control
 - Logic
 - Math
 - Text
 - Lists
 - Colors
 - Variables
 - Procedures
- Screen1
 - VerticalArrangement1
 - Label1
 - Button1
- Any component

Rename Delete

Media

Upload File ...

Viewer

0

initialize global skor to 1

when Button1 .Click

do set global skor to

random integer from 1 to 100

random fraction

random set seed to

min

2 0

square root

absolute



initialize global skor to 1

when Button1 .Click
do set global skor to +

initialize global skor to 1

when Button1 .Click
do set global skor to + 1

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bab10 Screen1 • Add Screen ... Remove Screen Designer Blocks

Blocks

- Built-in
 - Control
 - Logic
 - Math
 - Text
 - Lists
 - Colors
 - Variables
 - Procedures
- Screen1
 - VerticalArrangement1
 - Label1
 - Button1
- Any component

Rename Delete

Media

Upload File ...

Viewer

initialize global **name** to

get

set to

initialize local **name** to

in

initialize local **name** to

in

initialize global **skor** to 1

when **Button1** Click

do set global skor to + 1

2 0

Show Warnings

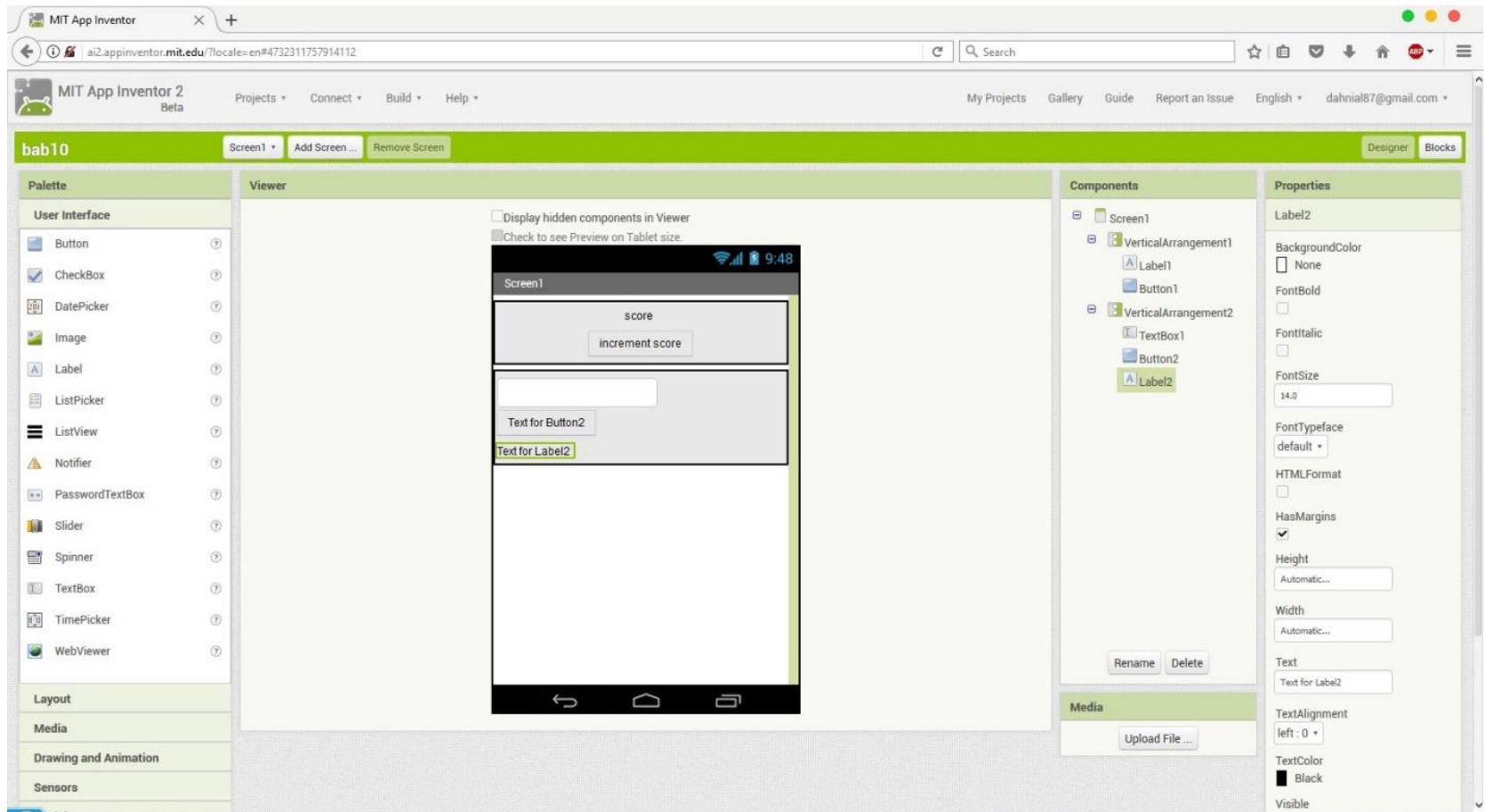


initialize global skor to 1

when Button1 .Click
do set global skor to get + 1

initialize global skor to 1

when Button1 .Click
do set global skor to get global skor + 1



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Palette

User Interface

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- Spinner
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- TimePicker
- WebView

Layout

Media

Drawing and Animation

Sensors

Viewer

Display hidden components in Viewer
Check to see Preview on Tablet size.

Screen1

score

Increment score

greet me!

Hasil

Components

- Screen1
 - VerticalArrangement1
 - Label1
 - Button1
 - VerticalArrangement2
 - TextBox1
 - Button2
 - Label2

Rename Delete

Media

Upload File...

Properties

Screen1

AboutScreen

AlignHorizontal
Left : 1

AlignVertical
Top : 1

AppName
bab10

BackgroundColor
White

BackgroundImage
None...

CloseScreenAnimation
Default

Icon
None...

OpenScreenAnimation
Default

ScreenOrientation
Unspecified

Scrollable

ShowStatusBar
✓

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Blocks

- Built-in
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 - Lists
 - Colors
 - Variables
 - Procedures
- Screen1
 - VerticalArrangement1
 - Label1
 - Button1
 - VerticalArrangement2
 - TextBox1
 - Button2
 - Label2
- Any component

Rename Delete

Media

Upload File ...

Viewer

initialize global skor to 1

when Button1 Click

do set global skor to [get global skor + 1]

initialize global nama to

1 0

Show Warnings

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Blocks

- Built-in
 - Control
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 - Math
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 - Colors
 - Variables
 - Procedures
- Screen1
 - VerticalArrangement1
 - Label1
 - Button1
 - VerticalArrangement2
 - TextBox1
 - Button2
 - Label2
- Any component

Rename Delete

Media

Upload File ...

Viewer

initialize global skor to 1

when Button1 Click

do

global skor to get global skor + 1

is empty

compare texts <

trim

initialize global nama to

upcase

starts at text piece

contains text piece

split text at

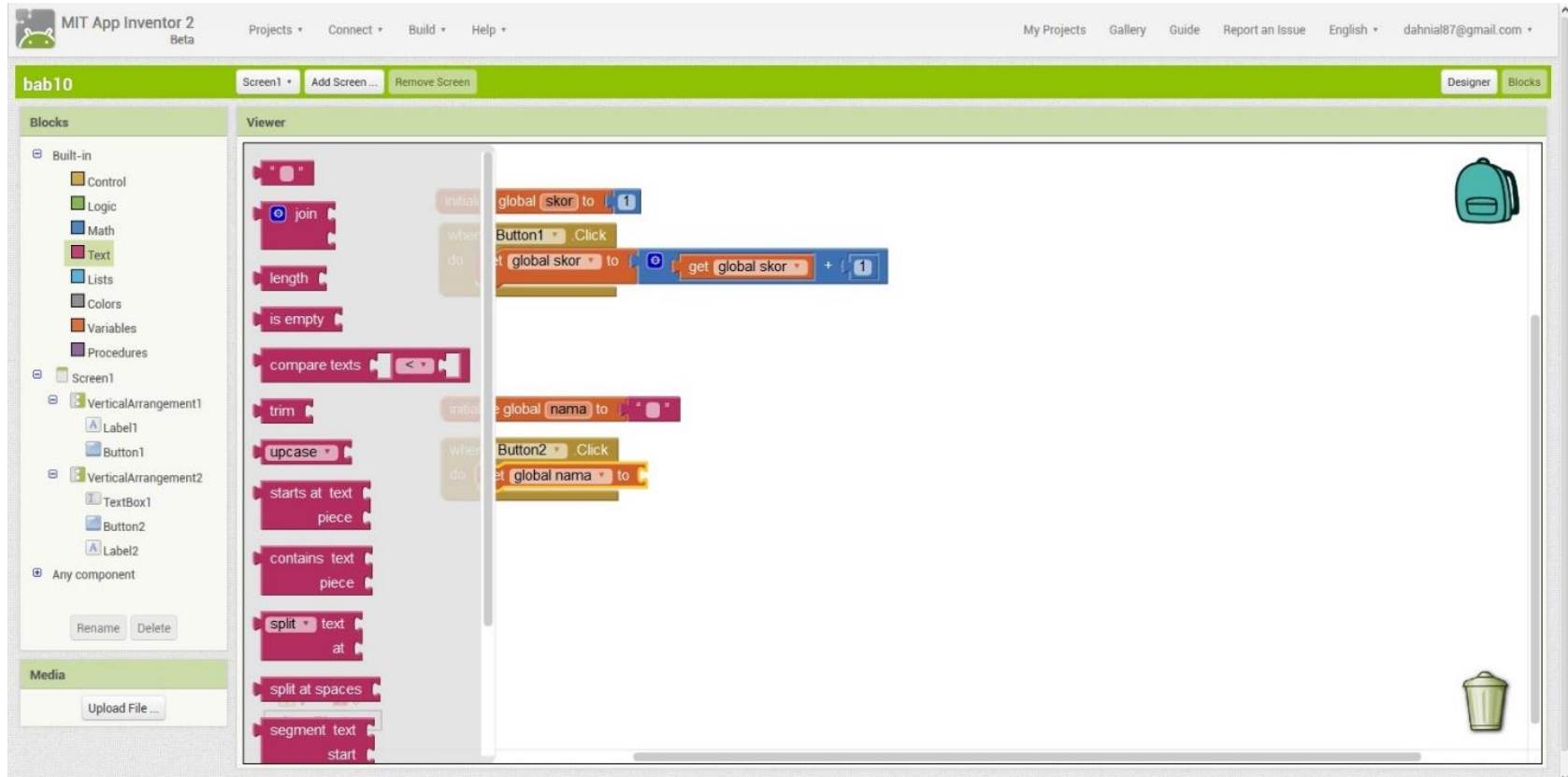
split at spaces

segment text start



initialize global nama to " "

when Button2 .Click
do set global nama to



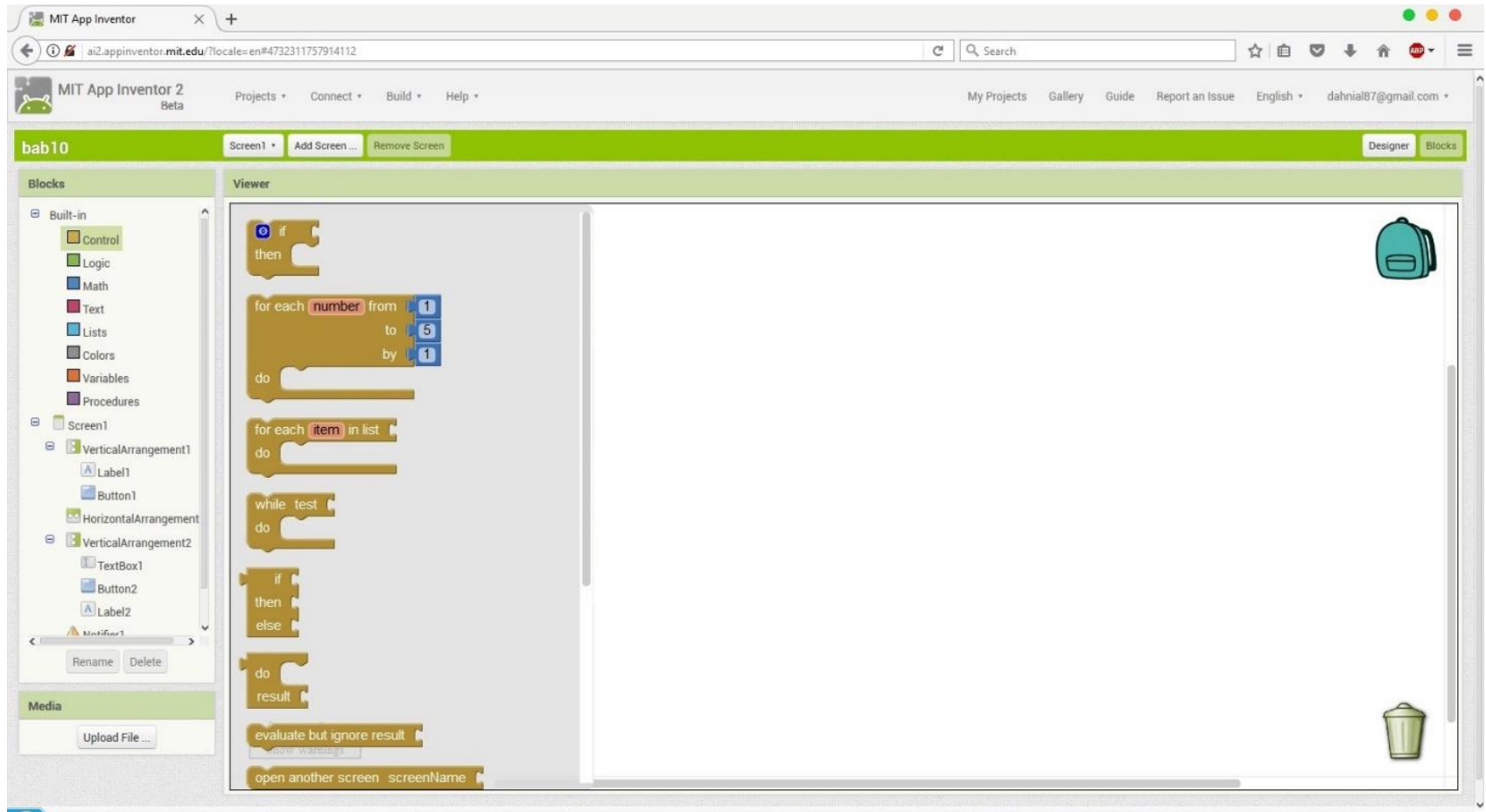
initialize global nama to " "

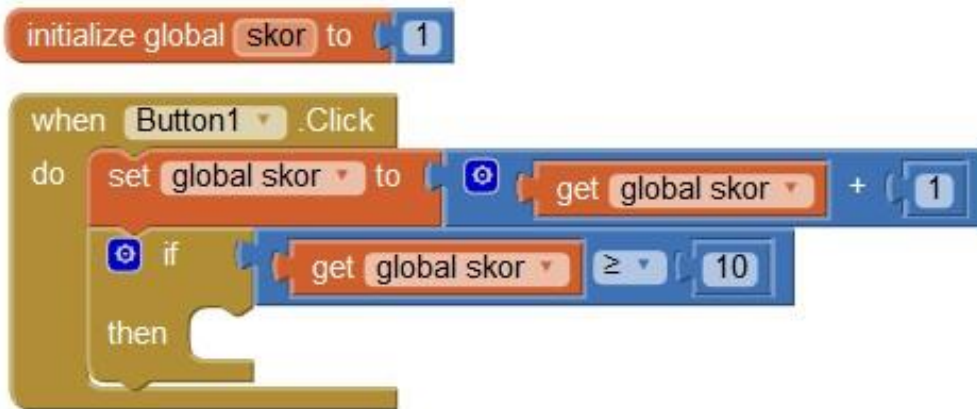
when Button2 .Click
do set global nama to join " Bapak " TextBox1 . Text

initialize global nama to " "

when Button2 .Click
do set global nama to join " Bapak " TextBox1 . Text
set Label2 . Text to get global nama

Conditional





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Screen1 Add Screen ... Remove Screen

Designer Blocks

Palette

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- WebView

Layout

Media

Drawing and Animation

Sensors

Viewer

Display hidden components in Viewer

Check to see Preview on Tablet size.

Screen1

score

increment score

greet me!

Hasil

Non-visible components

Notifier1

Components

- Screen1
 - VerticalArrangement1
 - Label1
 - Button1
 - HorizontalArrangement1
 - VerticalArrangement2
 - TextBox1
 - Button2
 - Label2
 - Notifier1

Properties

Notifier1

BackgroundColor

Dark Gray

NotifierLength

Long

TextColor

White

Rename Delete

Media

Upload File ...

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bab10 Screen1 Add Screen ... Remove Screen Designer Blocks

Blocks

- Control
- Logic
- Math
- Text
- Lists
- Colors
- Variables
- Procedures
- Screen1
 - VerticalArrangement1
 - Label1
 - Button1
 - HorizontalArrangement
 - VerticalArrangement2
 - TextBox1
 - Button2
 - Label2
 - Notifier1
- Any component

Rename Delete

Media

Upload File ...

Viewer

message

call Notifier1 .LogWarning
message

call Notifier1 .ShowAlert
notice

call Notifier1 .ShowChooseDialog
message
title
button1Text
button2Text
cancelable true

call Notifier1 .ShowMessageDialog
message
title
buttonText

call Notifier1 .ShowProgressDialog
message
title

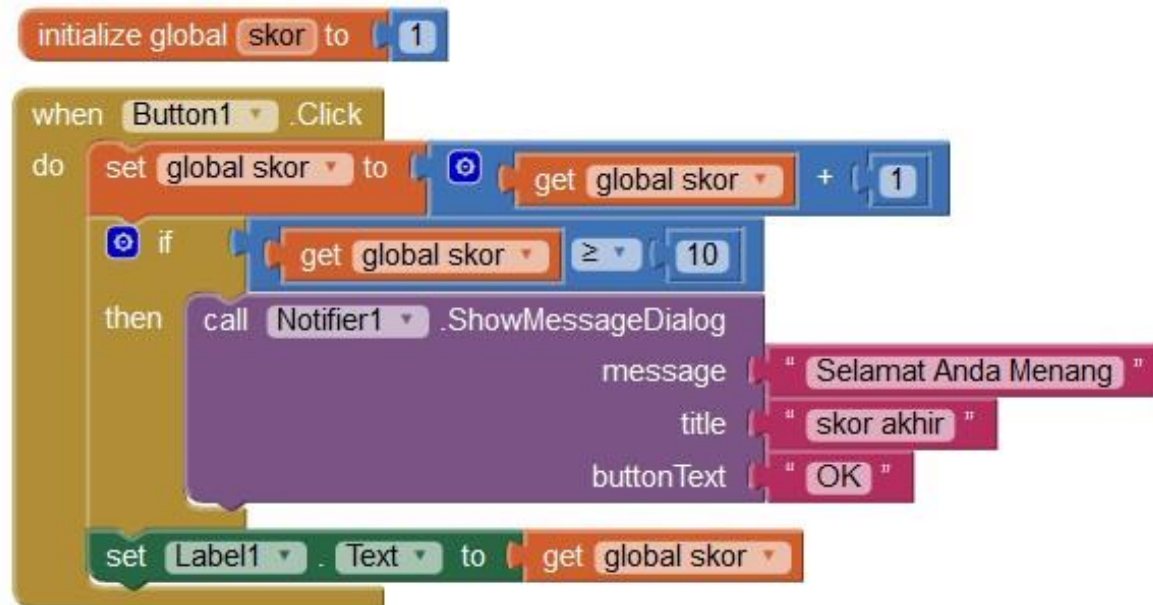
call Notifier1 .ShowTextDialog
message

initialize global skor to 1

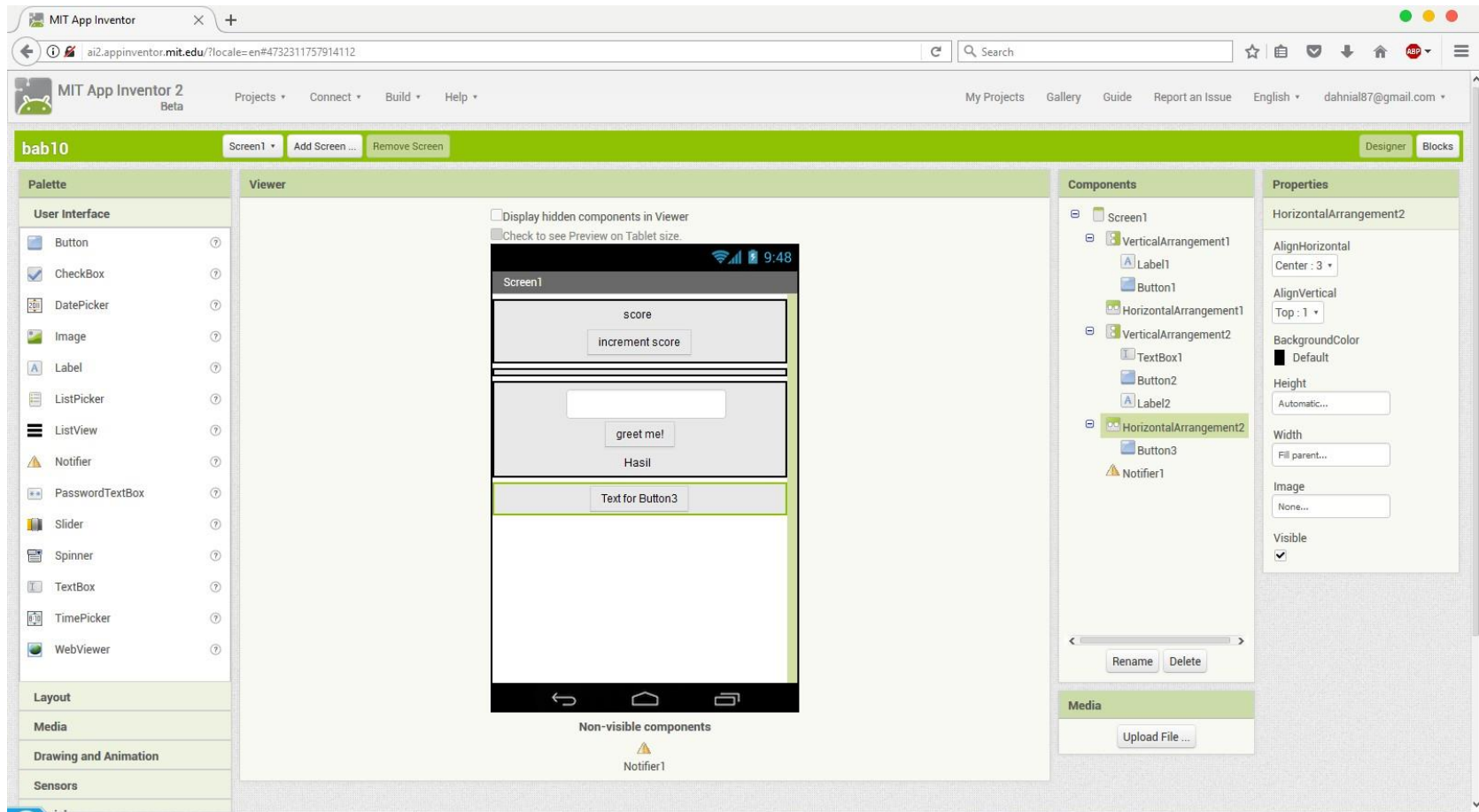
when Button1 Click
do
set global skor to 0 + get global skor + 1
if get global skor ≥ 10
then







MultiScreen & TinyDB



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Palette

User Interface

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- Label
- ListPicker
- ListView
- Notifier
- PasswordTextBox
- Slider
- Spinner
- TextBox
- TimePicker
- WebView

Layout

Media

Drawing and Animation

Sensors

Viewer

☐ Display hidden components in Viewer
☐ Check to see Preview on Tablet size

Screen1

score

increment score

greet me!

Hasil

Buka screen hasil

Non-visible components

Notifier1

Components

- Screen1
 - VerticalArrangement1
 - Label1
 - Button1
 - HorizontalArrangement1
 - VerticalArrangement2
 - TextBox1
 - Button2
 - Label2
 - HorizontalArrangement2
 - Button3
 - Notifier1

Properties

Button3

BackgroundColor
Default

Enabled
☒

FontBold
☐

FontItalic
☐

FontSize
14.0

FontTypeface
default

Height
Automatic...

Width
Automatic...

Image
None...

Shape
default

ShowFeedback
☒

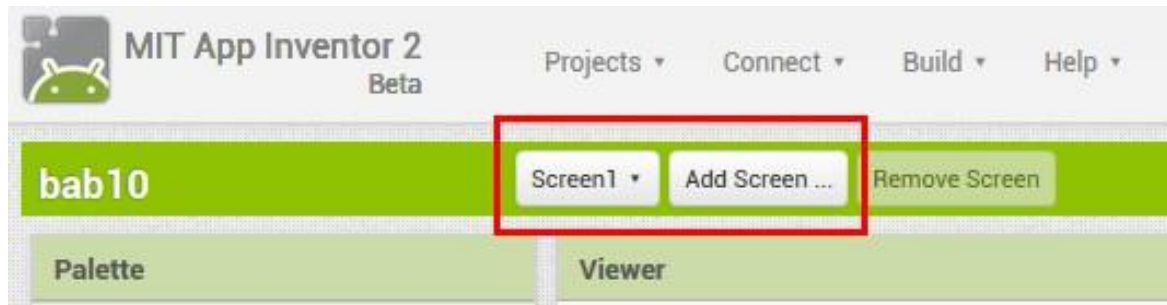
Text
Buka screen hasil

TextAlignment

Media

Upload File ...

Rename Delete



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Palette

User Interface

- Button
- CheckBox
- DatePicker
- Image
- Label
- ListPicker
- ListView
- Notifier
- PasswordTextBox
- Slider
- Spinner
- TextBox
- TimePicker
- WebView

Layout

Media

Drawing and Animation

Sensors

Viewer

☐ Display hidden components in Viewer
☐ Check to see Preview on Tablet size.

Screen1

score

increment score

New Screen

Screen name: Screen2

Cancel OK

Components

- Screen1
 - VerticalArrangement1
 - Label1
 - Button1
 - HorizontalArrangement1
 - VerticalArrangement2
 - TextBox1
 - Button2
 - Label2
 - HorizontalArrangement2
 - Button3
 - Notifier1

Properties

Button3

BackgroundColor
Default

Enabled
☒

FontBold
☐

FontItalic
☐

FontSize
14.0

FontTypeface
default

Height
Automatic...

Width
Automatic...

Image
None...

Shape
default

ShowFeedback
☒

Text
Buka screen hasil

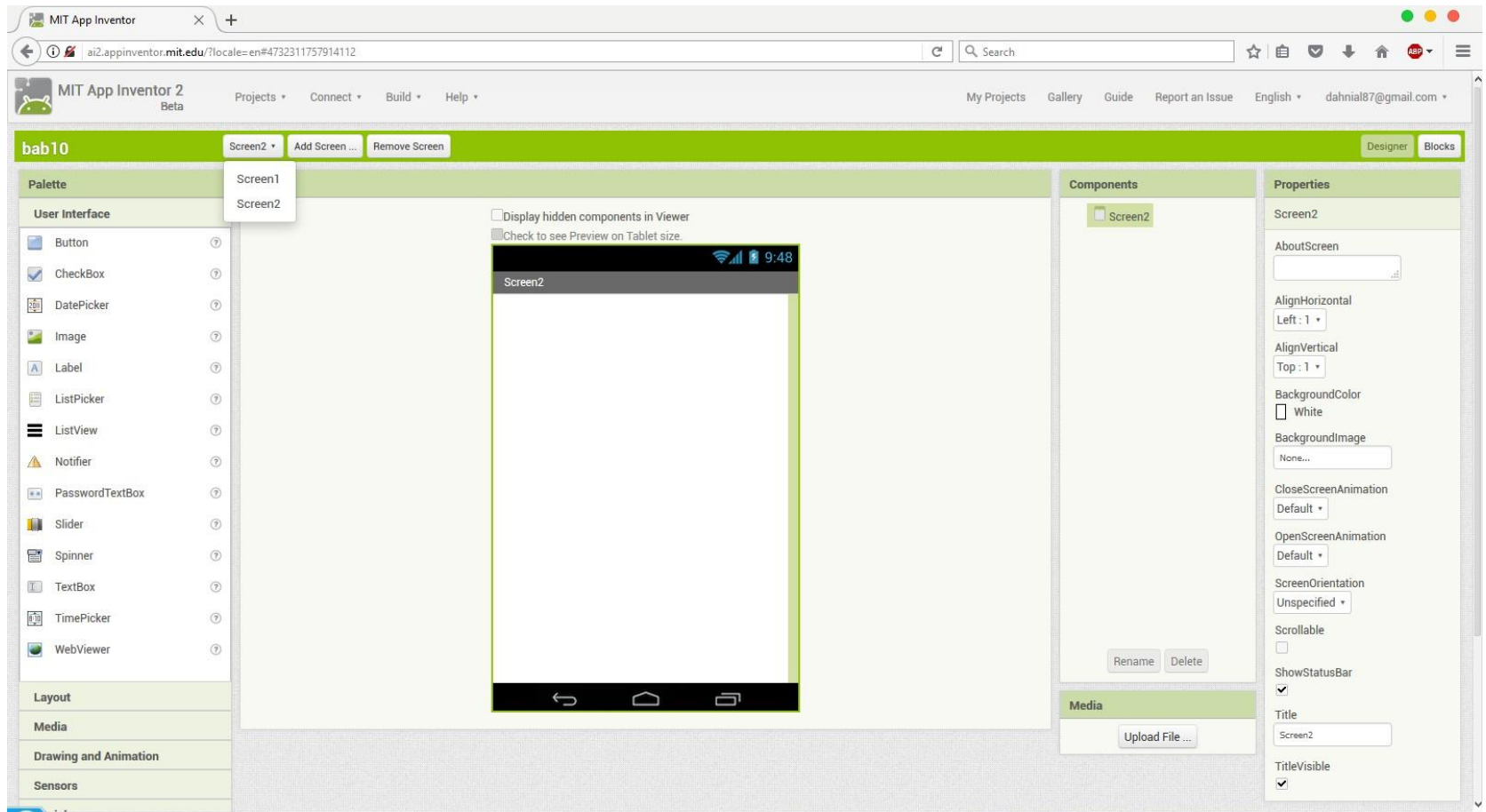
TextAlignment

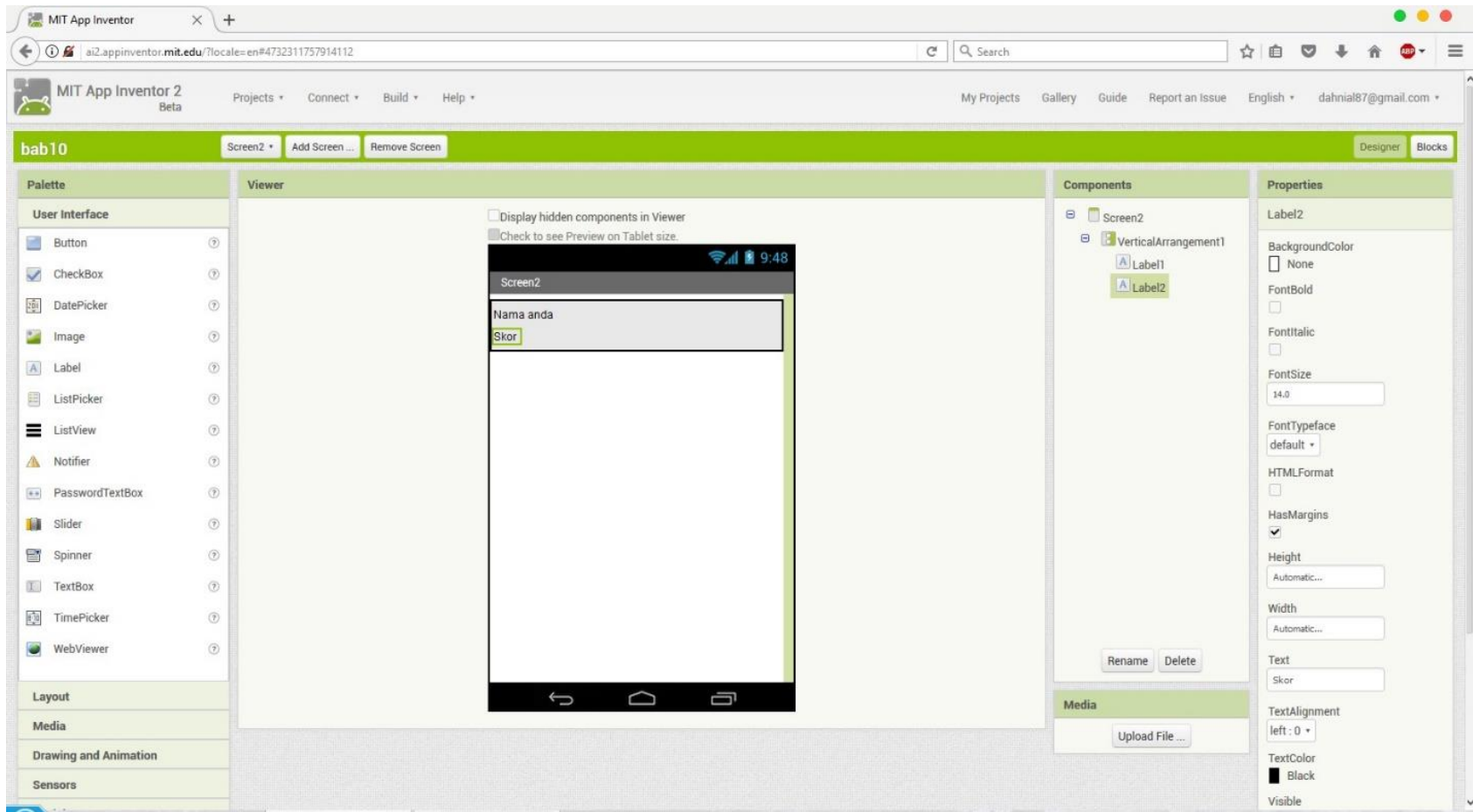
Media

Upload File ...

Non-visible components

Notifier1





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bab10

Screen1 Add Screen... Remove Screen

Designer Blocks

Palette

- User Interface
- Layout
- Media
- Drawing and Animation
- Sensors
- Social
- Storage
 - File
 - FusiontablesControl
 - TinyDB**
 - TinyWebDB
- Connectivity
- LEGO® MINDSTORMS®
- Experimental
- Extension

Viewer

Screen1

score

Increment score

greet me!

Hasil

Buka screen hasil

Non-visible components

Notifier

TinyDB1

Components

- Screen1
 - VerticalArrangement1
 - Label1
 - Button1
 - HorizontalArrangement1
 - VerticalArrangement2
 - TextBox1
 - Button2
 - Label2
 - HorizontalArrangement2
 - Button3
 - Notifier1
 - TinyDB1**

Properties

TinyDB1

Media

Upload File ...

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bab10 Screen1 Add Screen ... Remove Screen Designer Blocks

Blocks

- Wait
- Text
- Lists
- Colors
- Variables
- Procedures
- Screen1
 - VerticalArrangement1
 - Label1
 - Button1
 - HorizontalArrangement
 - VerticalArrangement2
 - TextBox1
 - Button2
 - Label2
 - HorizontalArrangement
 - Button3
 - Notifier1
 - TinyDB1

Rename Delete

Media

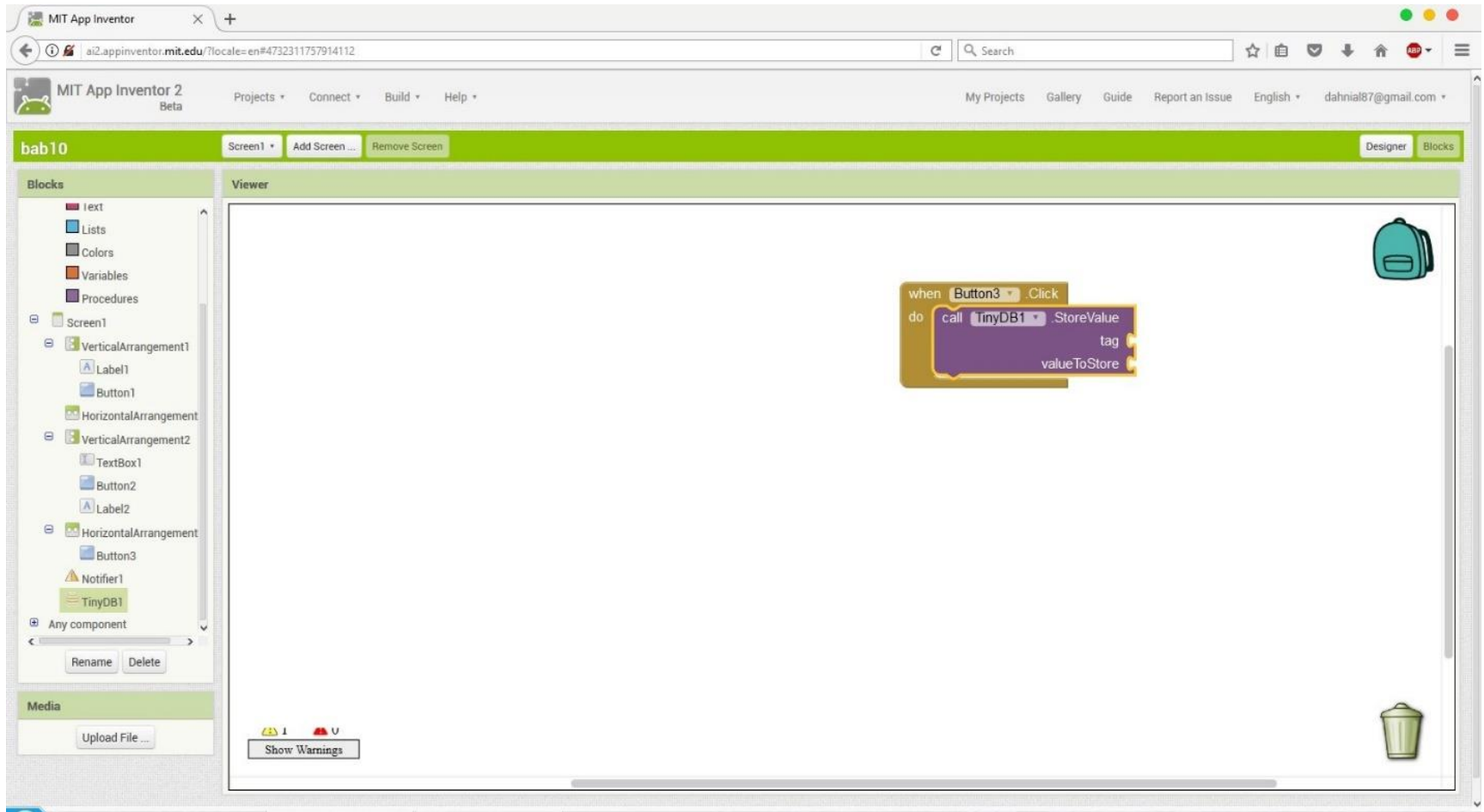
Upload File ...

Viewer

```
call TinyDB1 .ClearAll
call TinyDB1 .ClearTag
tag
call TinyDB1 .GetTags
call TinyDB1 .GetValue
tag
valueIfTagNotThere
call TinyDB1 .StoreValue
tag
valueToStore
TinyDB1
```

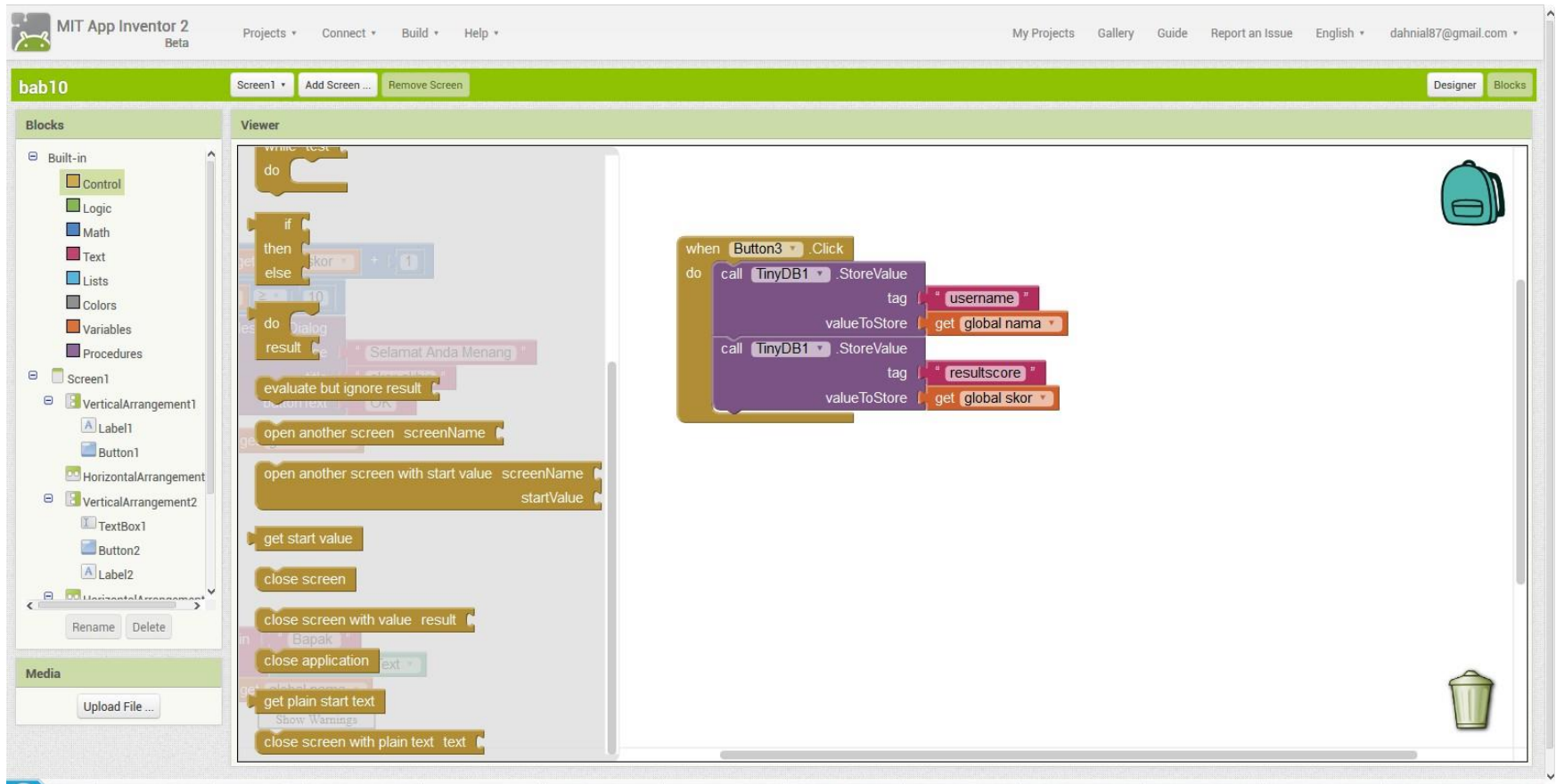
when Button3 .Click
do

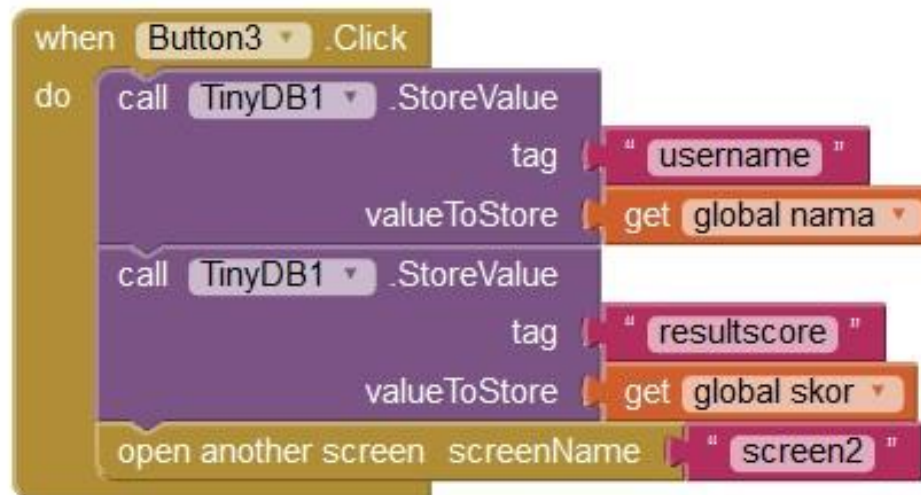
0 2
Show Warnings





After saving to TinyFB, lets open the screen





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bab10 Screen2 Add Screen Remove Screen Designer Blocks

Palette

- User Interface
- Layout
- Media
- Drawing and Animation
- Sensors
- Social
- Storage
 - File
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- Experimental
- Extension

Viewer

Display hidden components in Viewer
Check to see Preview on Tablet size.

Screen2

Nama anda
Skor

Components

- Screen2
 - VerticalArrangement1
 - Label1
 - Label2
 - TinyDB1**

Rename Delete

Media

Upload File ...

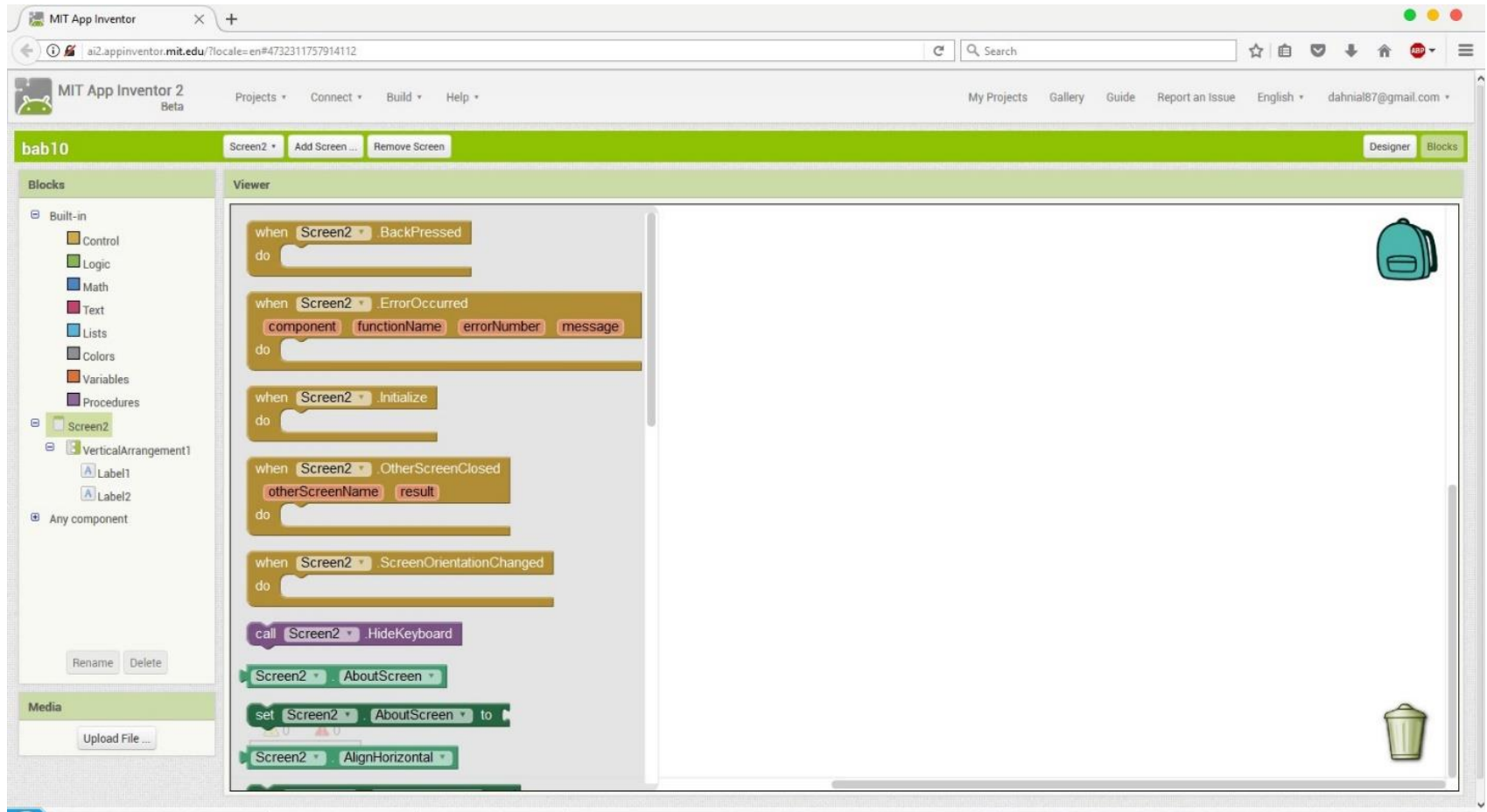
Properties

TinyDB1

Non-visible components

TinyDB1

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bab10

Screen2 Add Screen ... Remove Screen

Designer Blocks

Blocks

- Built-in
 - Control
 - Logic
 - Math
 - Text
 - Lists
 - Colors
 - Variables
 - Procedures
- Screen2
 - VerticalArrangement1
 - Label1
 - Label2
 - TinyDB1
- Any component

Rename Delete

Media

Upload File ...

Viewer

when Screen2 Initialize

do

- set Label1 Text to call TinyDB1 .GetValue tag username valueIfTagNotThere
- set Label2 Text to call TinyDB1 .GetValue tag resultscore valueIfTagNotThere

Show Warnings

Saving File

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bab10

Screen2 Add Screen Remove Screen Designer Blocks

Palette

User Interface

- Button
- CheckBox
- DatePicker
- Image
- Label
- ListPicker
- ListView
- Notifier
- PasswordTextBox
- Slider
- Spinner
- TextBox
- TimePicker
- WebView

Layout

Media

Drawing and Animation

Sensors

Viewer

Display hidden components in Viewer
Check to see Preview on Tablet size.

Screen2

Nama anda
Skor

SIMPAN KE FILE

Non-visible components

TinyDB1

Components

- Screen2
 - VerticalArrangement1
 - Label1
 - Label2
 - Button1
 - TinyDB1

Rename Delete

Media

Upload File ...

Properties

Button1

BackgroundColor
Default

Enabled
☒

FontBold
☐

FontItalic
☐

FontSize
14.0

FontTypeface
default

Height
Automatic...

Width
Automatic...

Image
None...

Shape
default

ShowFeedback
☒

Text
SIMPAN KE FILE

Text Alignment

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bab10 Screen2 Add Screen Remove Screen Designer Blocks

Palette

- User Interface
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 - TinyWebDB
- Connectivity
- LEGO® MINDSTORMS®
- Experimental
- Extension

Viewer

Screen2

Nama anda

Skor

SIMPAN KE FILE

Components

- Screen2
 - VerticalArrangement1
 - Label1
 - Label2
 - Button1
 - TinyDB1
 - File1**

Properties

File1

Media

Upload File ...

Non-visible components

- TinyDB1
- File1**

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Blocks

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 - Math
 - Text
 - Lists
 - Colors
 - Variables
 - Procedures
- Screen2
 - VerticalArrangement1
 - Label1
 - Label2
 - Button1
 - TinyDB1
 - File1
- Any component

Rename Delete

Media

Upload File ...

Viewer

when File1 .AfterFileSaved
fileName
do

when File1 .GotText
text
do

call File1 .AppendToFile
text
fileName

call File1 .Delete
fileName

call File1 .ReadFrom
fileName

call File1 .SaveFile
text
fileName

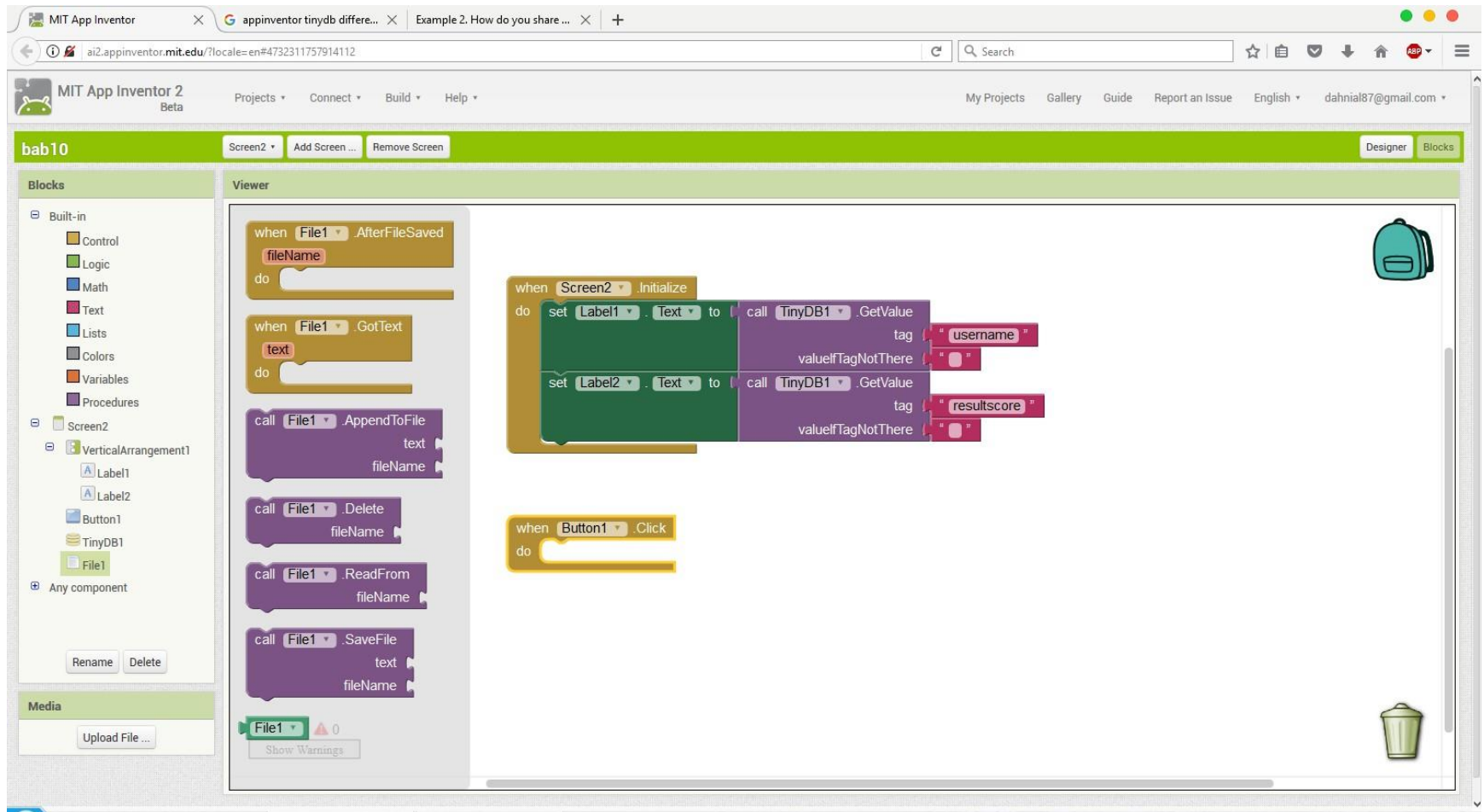
File1 0
Show Warnings

when Screen2 .Initialize
do

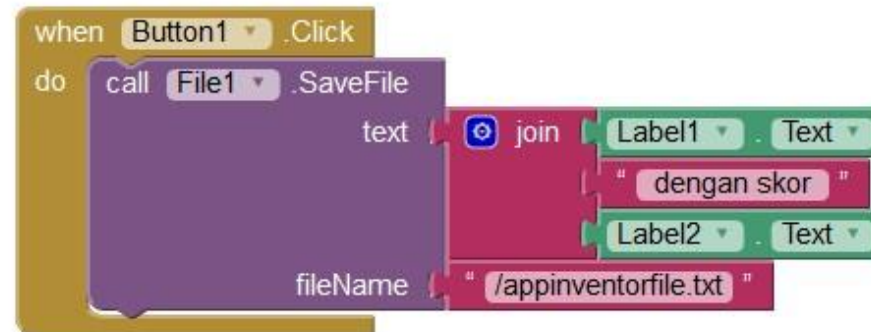
set Label1 .Text to call TinyDB1 .GetValue
tag username
valueIfTagNotThere

set Label2 .Text to call TinyDB1 .GetValue
tag resultscore
valueIfTagNotThere

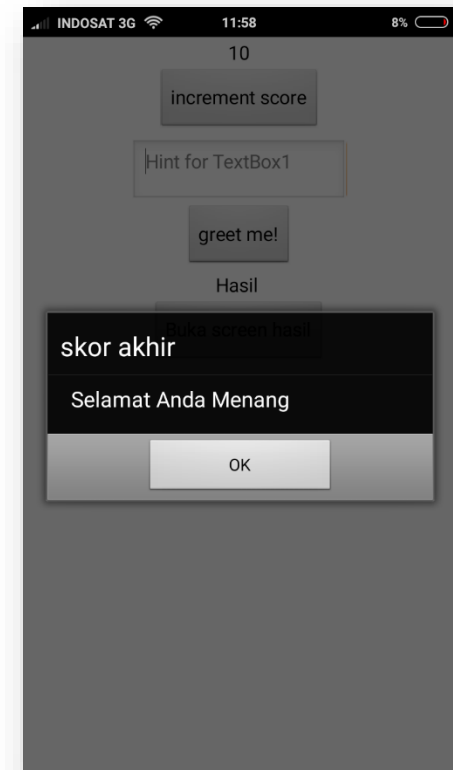
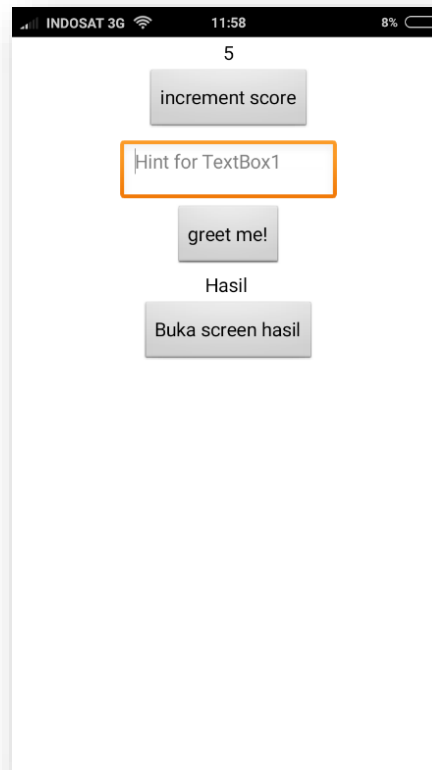
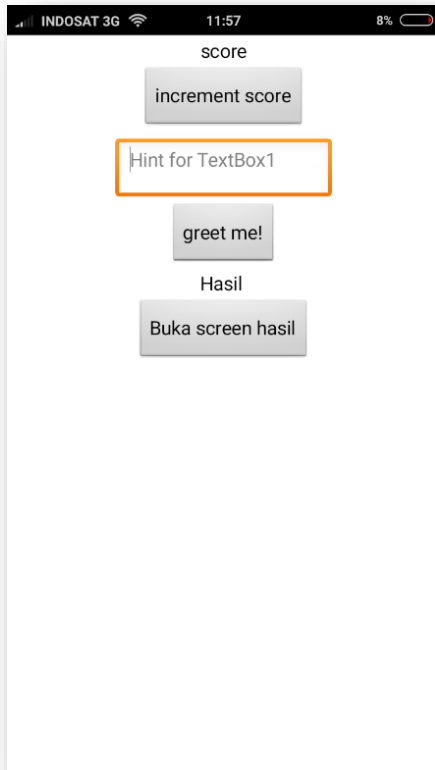
when Button1 .Click
do

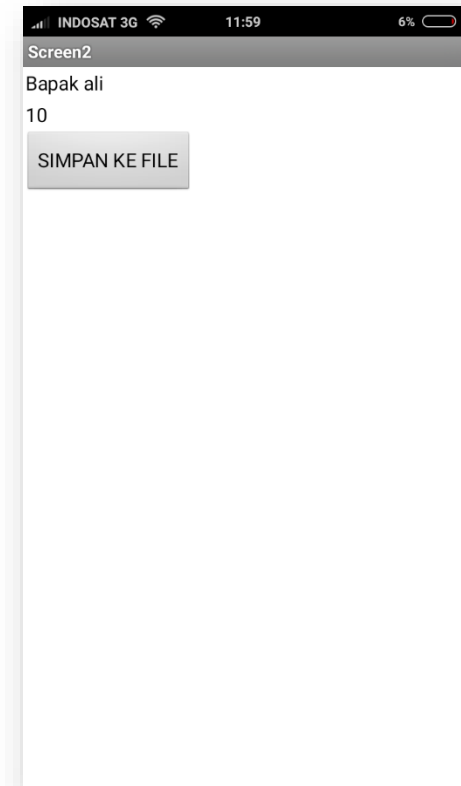
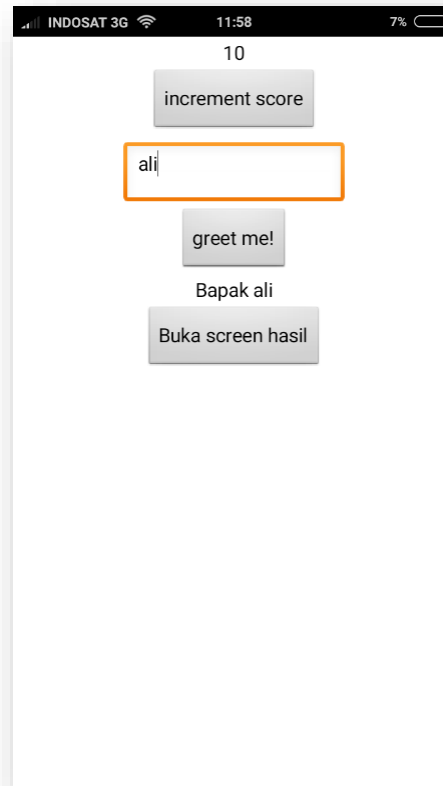
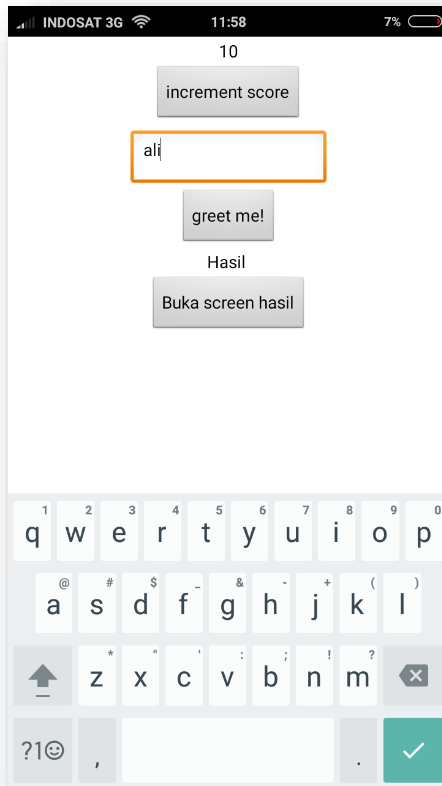


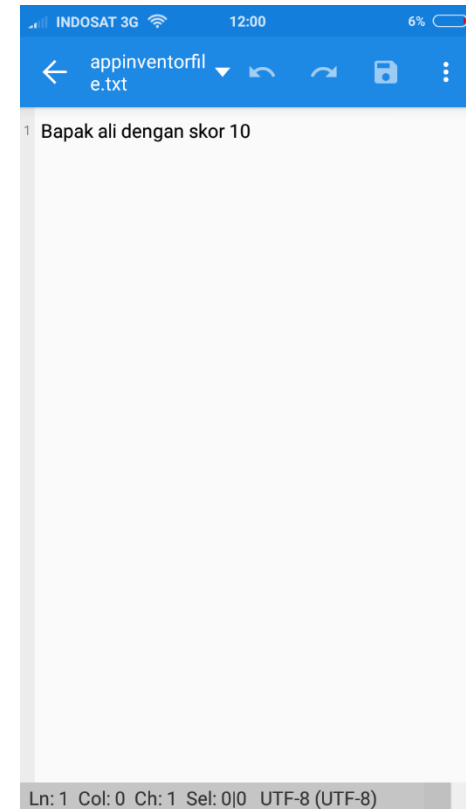
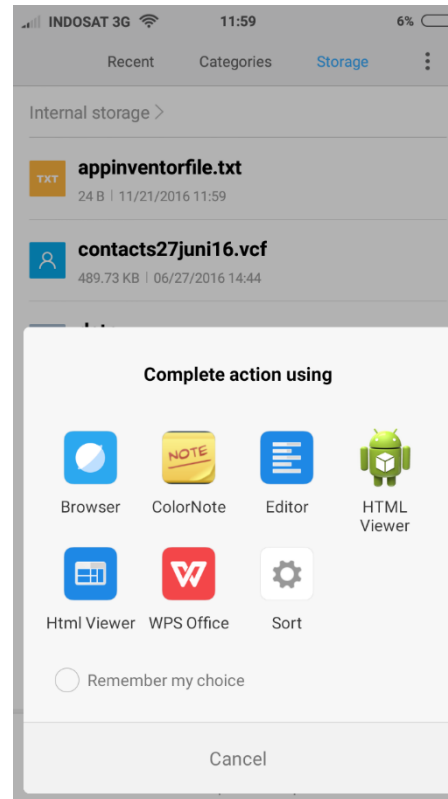
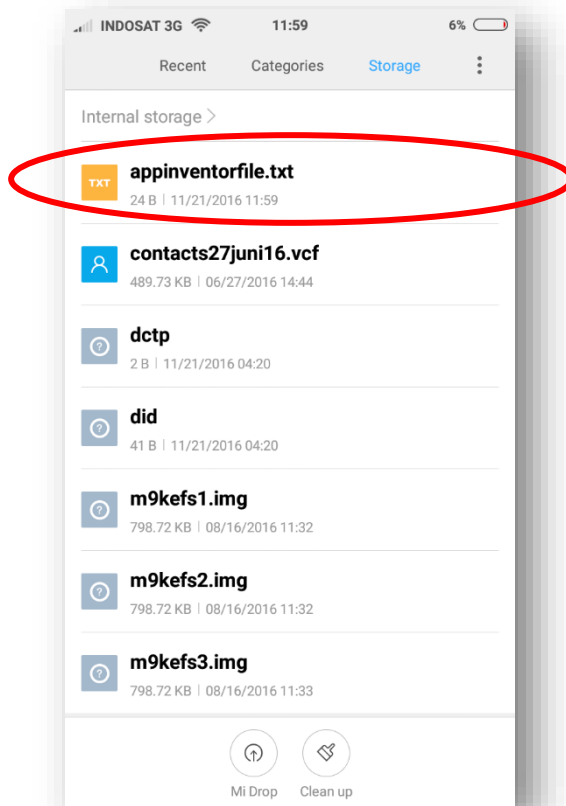




Result







TERIMA KASIH