

Komponen dalam Mendesain Aplikasi

TI2137 - Pengembangan Aplikasi Mobil Front-End



Team Teaching

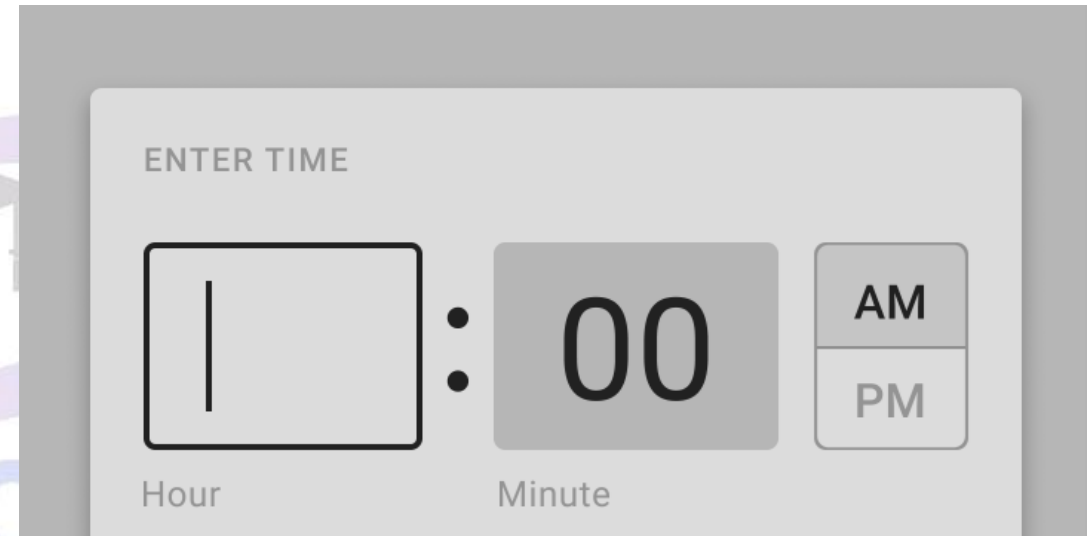
- Sunaryo Winardi, S.Kom., M.Tl.
- Sio Jurnalís Pipin, S.Kom., M.Kom.
- M. Taufiq Hidayat Pohan, S.Kom.
- Richy Rotuahta Saragih, S.Kom.



Komponen dalam Mendesain Aplikasi Part. 11

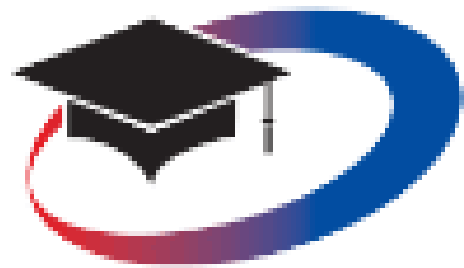


DatePicker



TimePicker

DatePicker

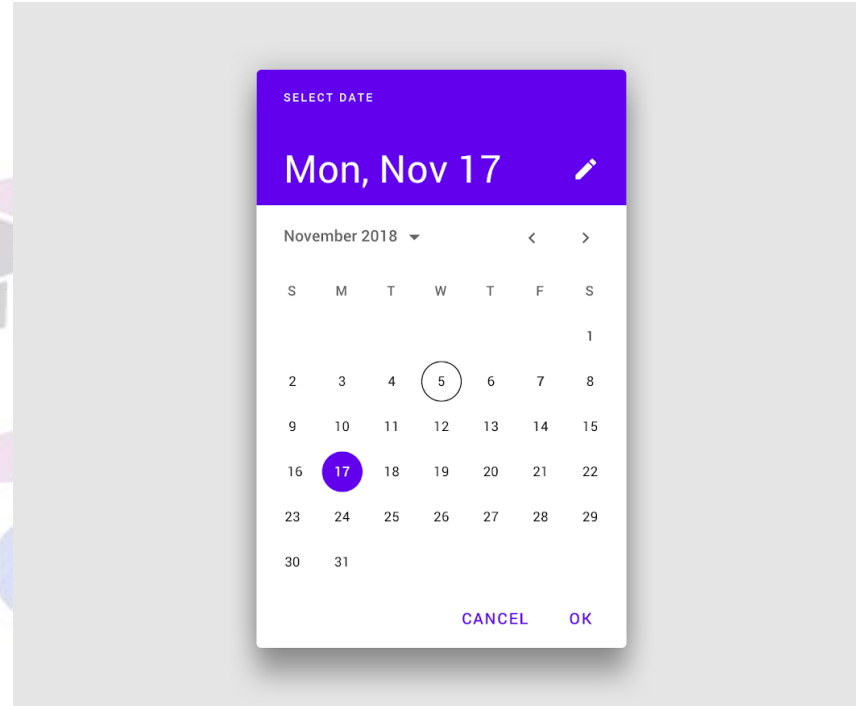


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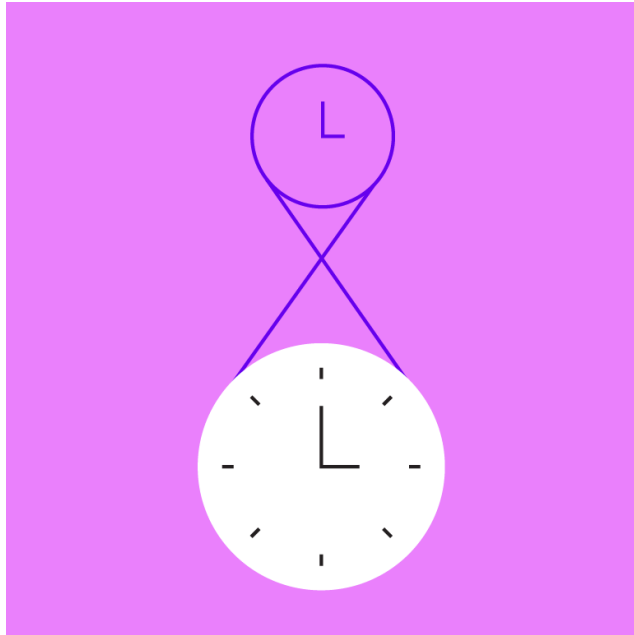
DatePicker adalah...

- User dapat memilih tanggal atau range tanggal
- Dapat cocok untuk konteks di mana mereka muncul
- Dapat di implementasikan di
 - Dialog di Mobile
 - Text Field dropdown di desktop

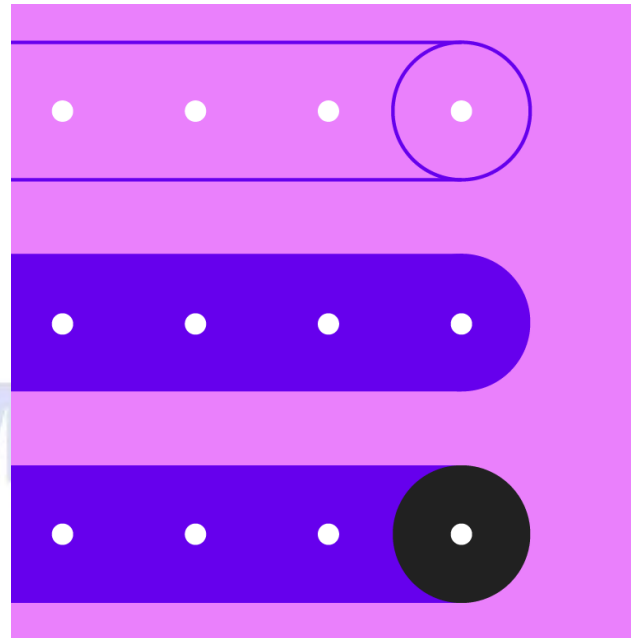


Prinsiple of DatePicker

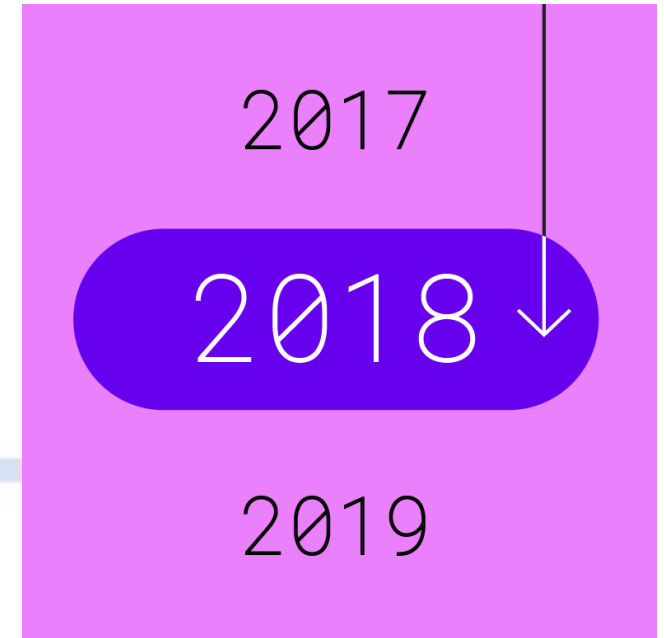
Relevant



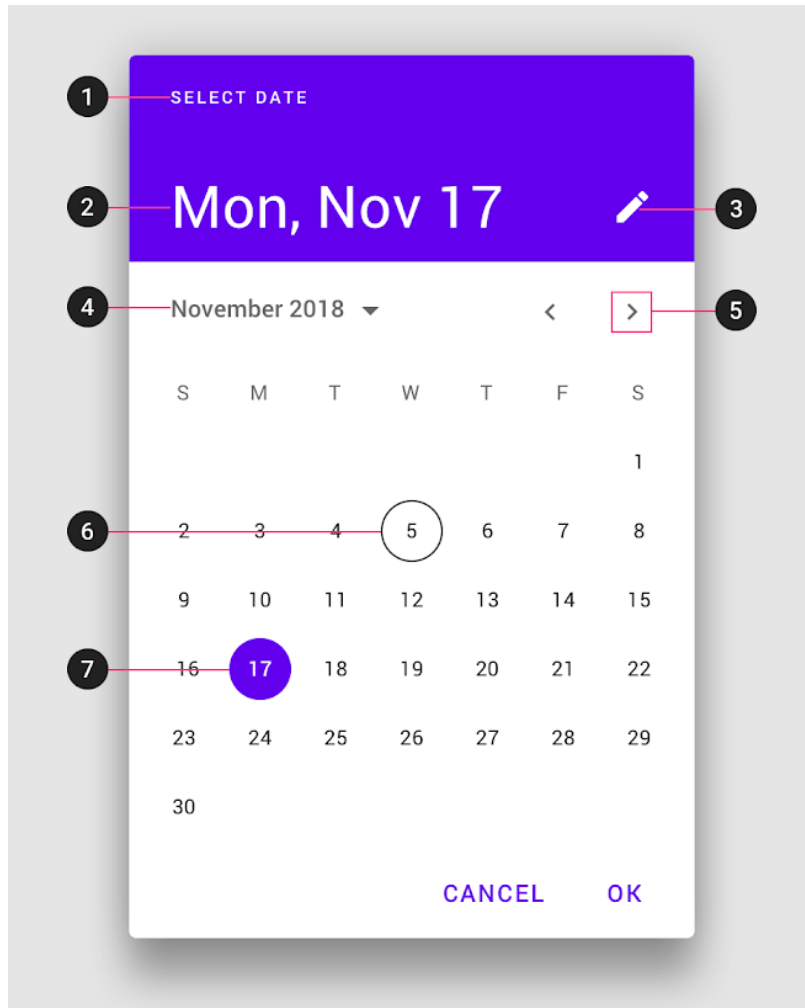
Clear



Intuitive



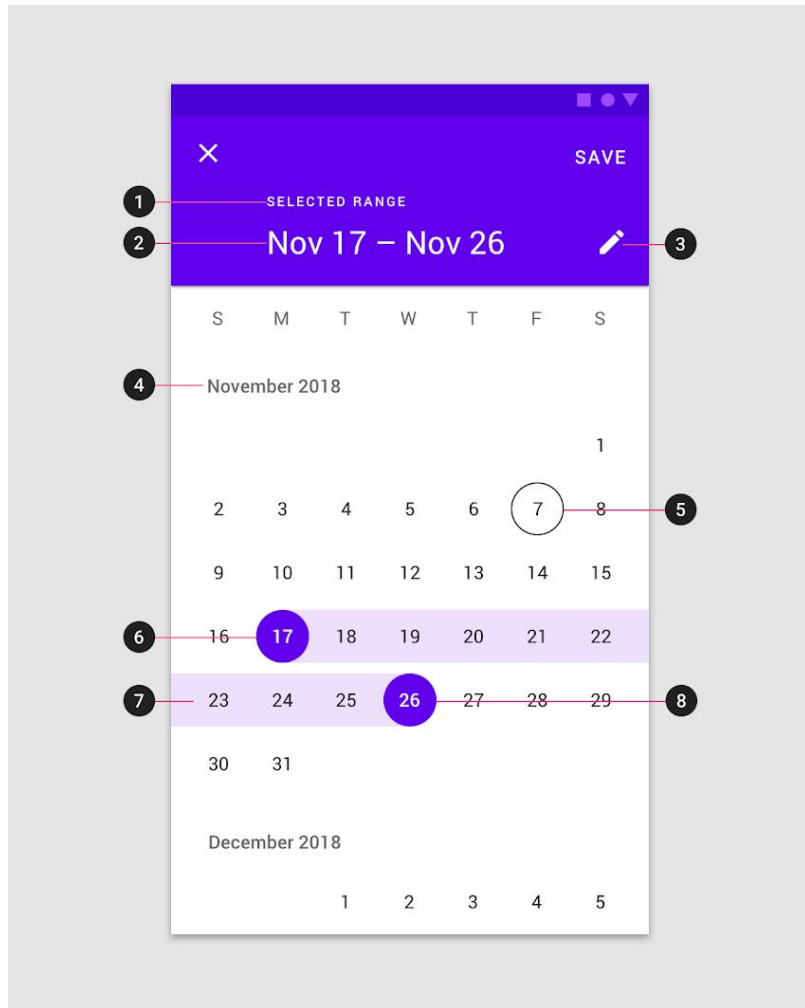
Anatomi pada DatePicker



Mobile Calendar Date Picker

1. Title
2. Selected date
3. Switch-to-keyboard input icon
4. Year selection menu
5. Month pagination
6. Current date
7. Selected date

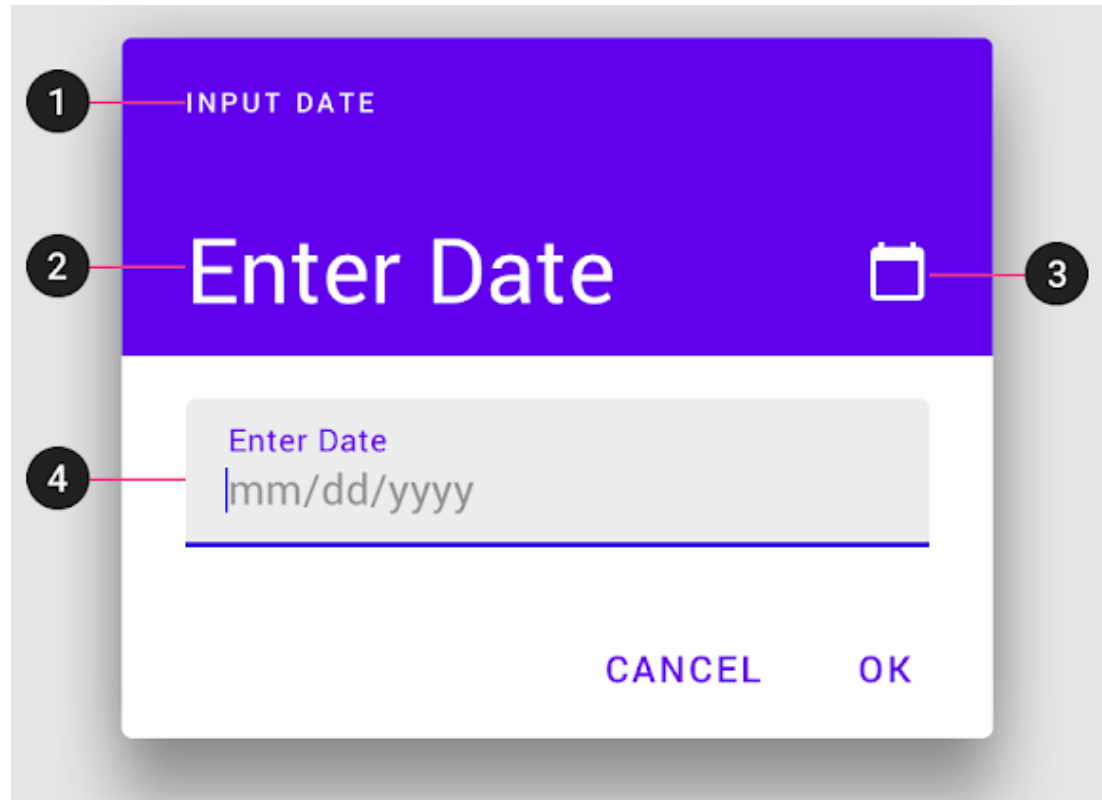
Anatomi pada DatePicker



Mobile Date Range Picker

1. Title
2. Selected date range
3. Switch-to-keyboard input icon
4. Month and Year label
5. Current date
6. Start date
7. Selected range
8. End date

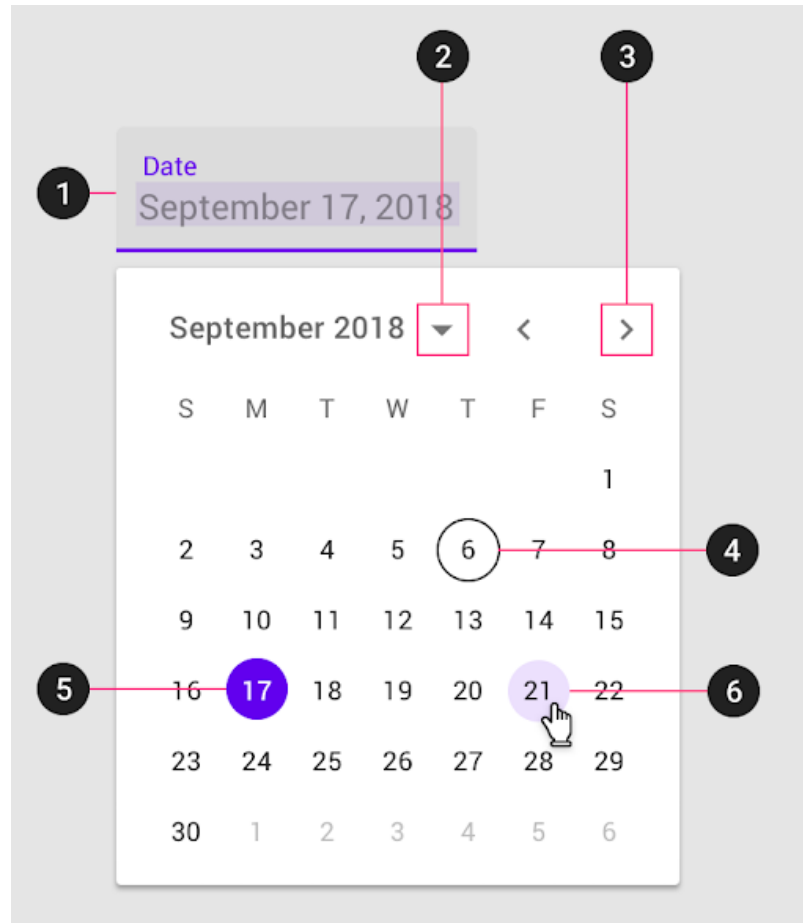
Anatomi pada DatePicker



Mobile Input Picker

1. Title
2. Selected date
3. Switch-to-calendar view icon
4. Text field

Anatomi pada DatePicker

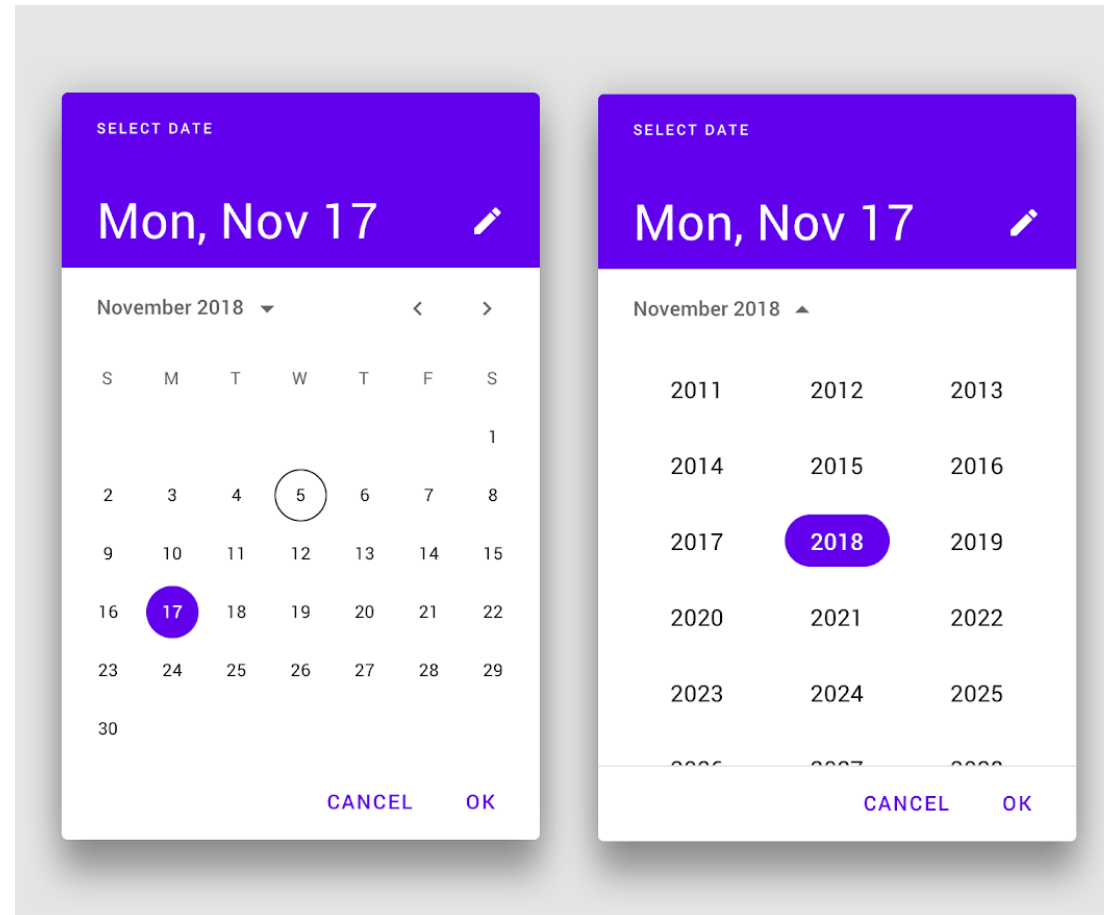


Desktop Input Picker

1. Text field
2. Year and month selection
3. Month pagination
4. Today's date
5. Selected day
6. Hover state

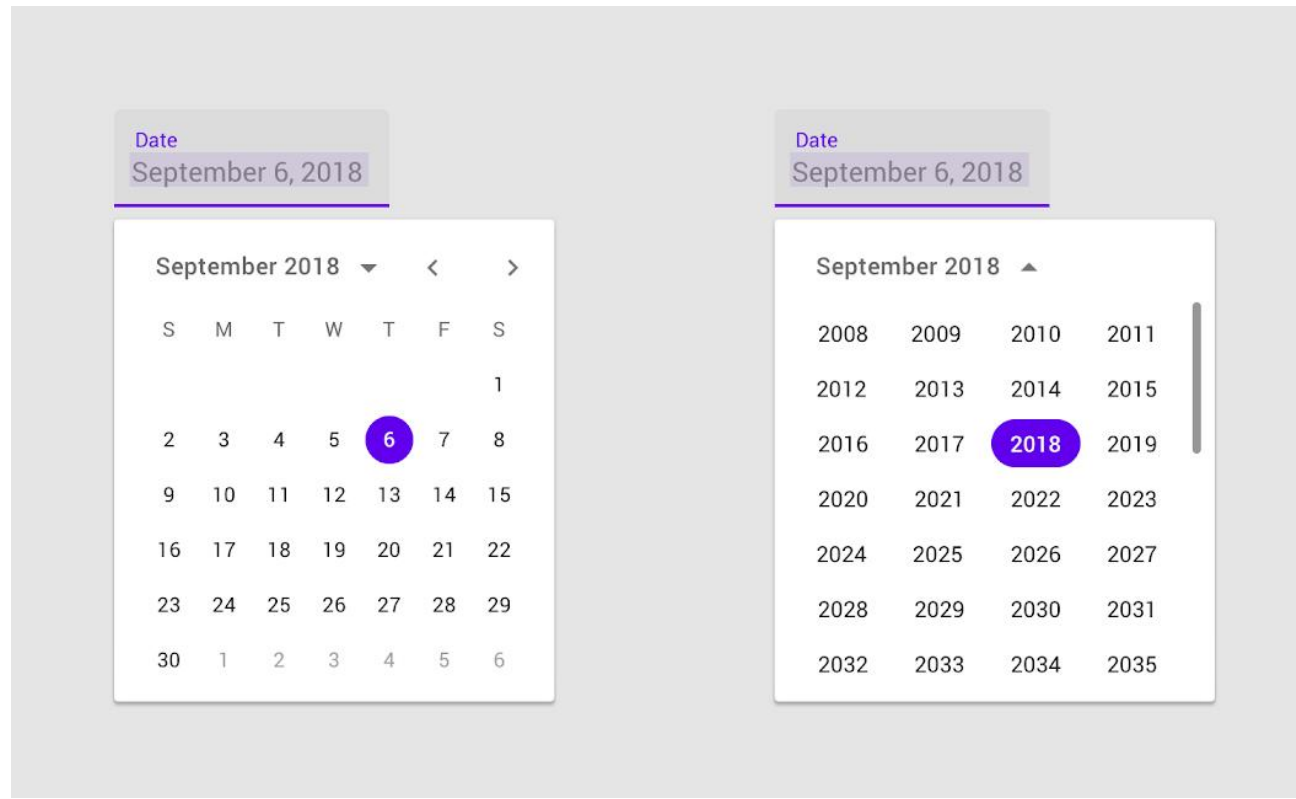
Jenis Date Picker

Mobile Picker



Jenis Date Picker

Desktop Picker

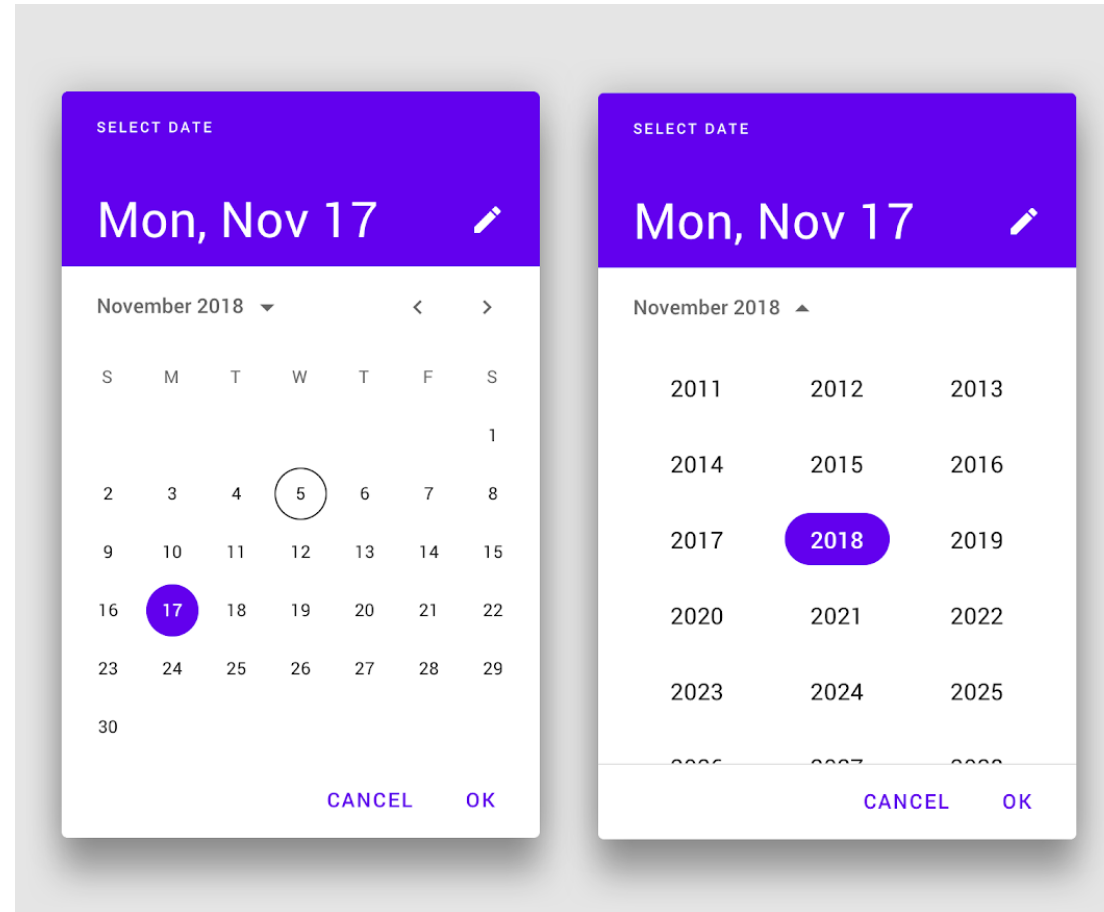


Mobile Picker

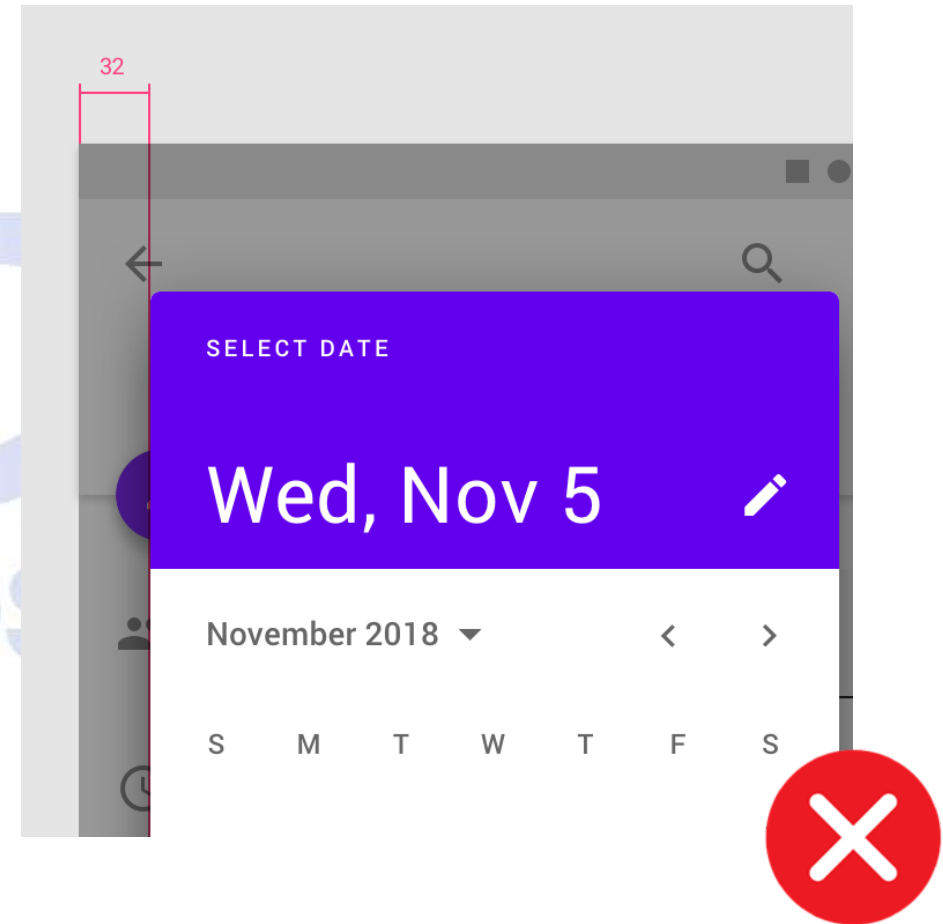
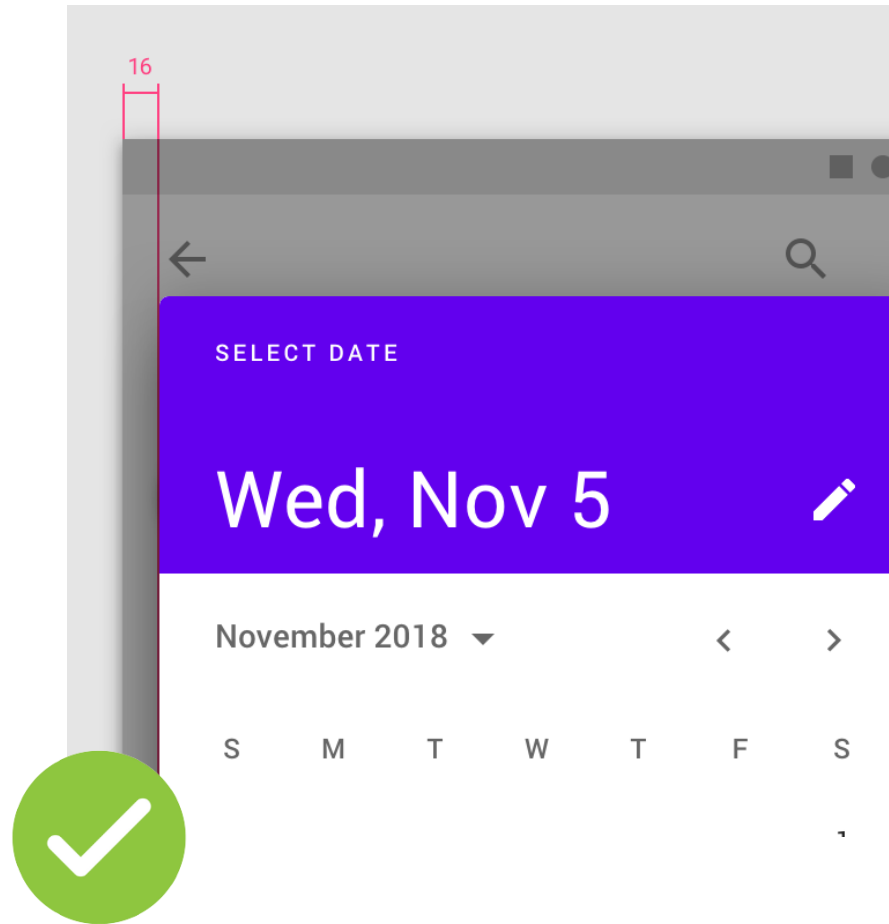
- Dipakai untuk memilih tanggal
- Ditampilkan dalam dialog
- Umumnya dipake untuk
 - Membuat reservasi Restoran
 - Penjadwalan meeting
- Kurang ideal untuk memilih tanggal di masa lalu atau masa depan yang membutuhkan lebih banyak navigasi seperti tanggal lahir atau expired date
- User dapat memilih satu tanggal dan tahun



Mobile Picker



Mobile Picker



Mobile Picker



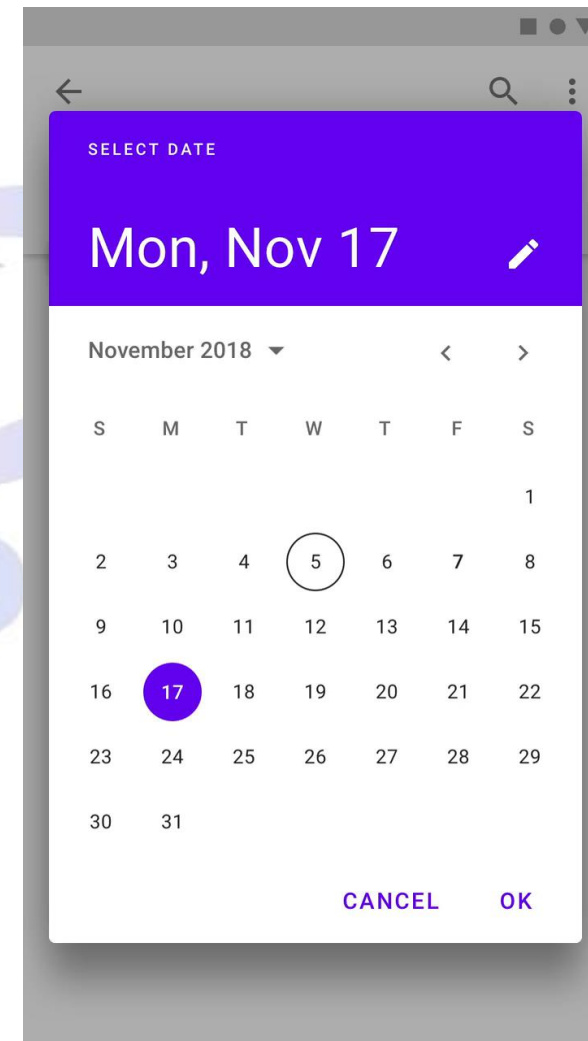
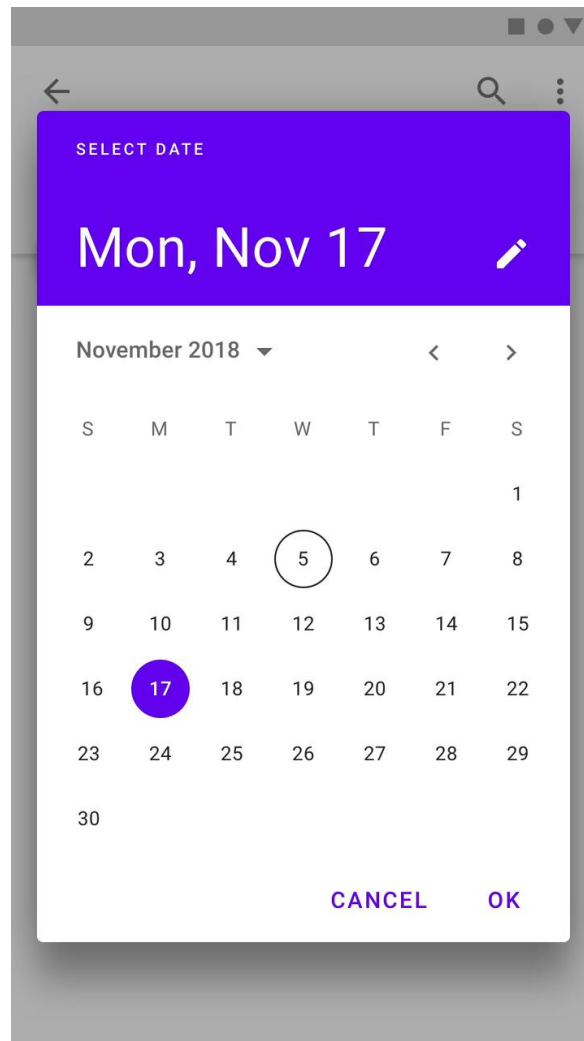
Behavior

Dapat bernavigasi antar tanggal dengan beberapa cara

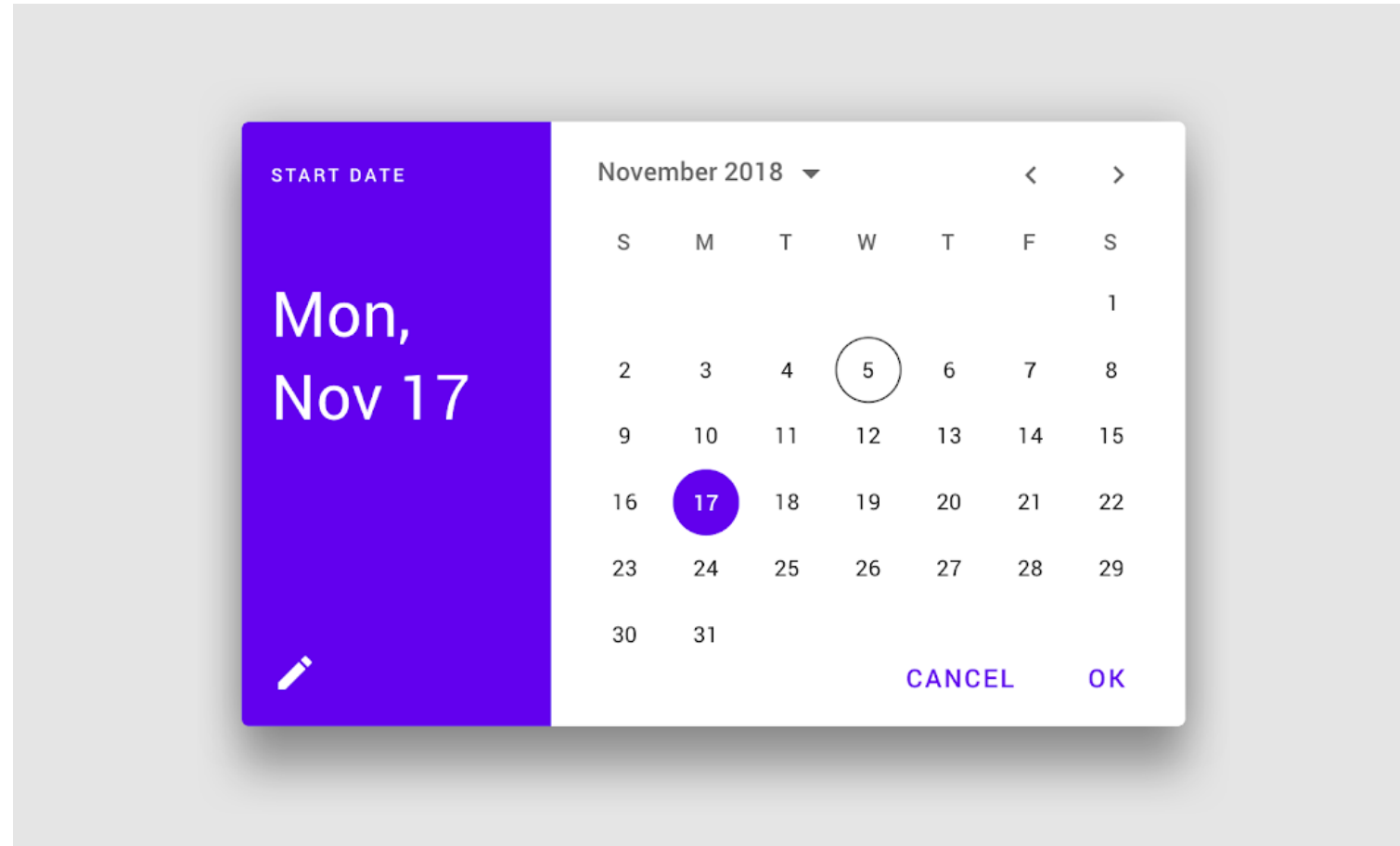
- Navigasi antar bulan, swipe horizontal
- Navigasi antar Tahun, scroll vertical
- Akses year picker, tekan tahunnya



Behavior



Behavior

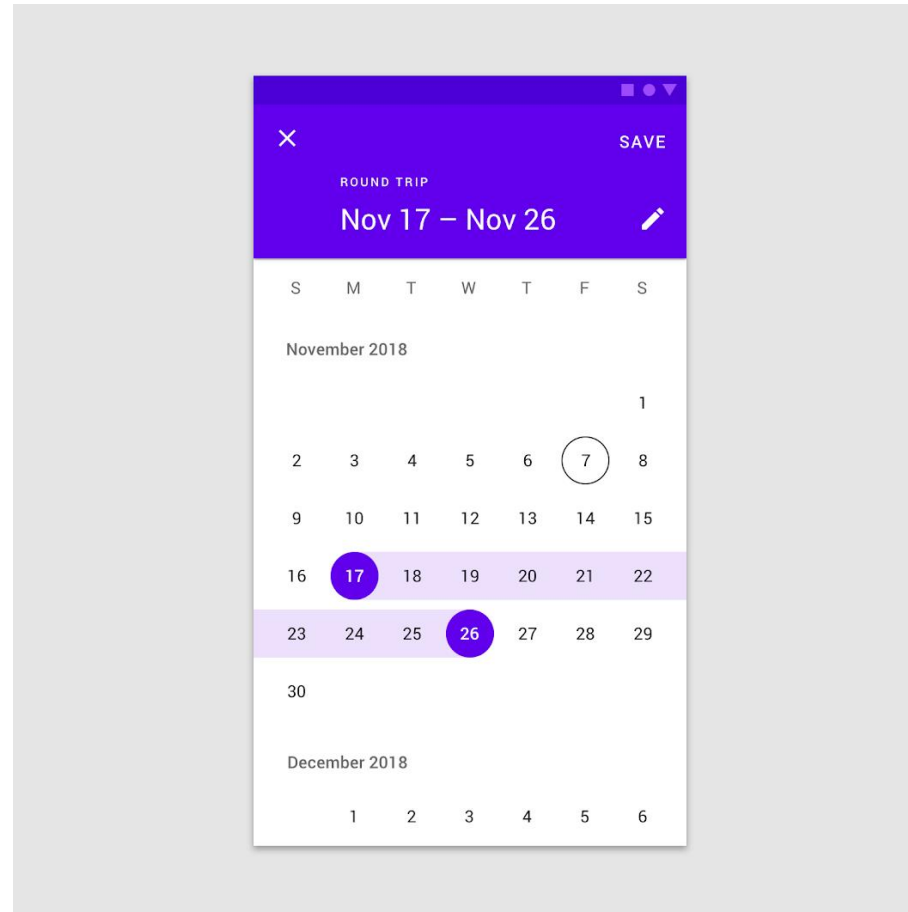


Mobile Date Range Picker

- Dipakai untuk memilih range tanggal
- Menutupi seluruh layar
- Umumnya dipake untuk
 - Booking penerbangan
 - Reservasi Hotel



Mobile Date Range Picker



Behavior

Dapat bernavigasi antar tanggal dengan beberapa cara

- Untuk memilih range tanggal, tap tanggal start dan end di kalender
- Navigasi antar bulan, scroll secara vertikal



Behavior

×

SAVE

SELECT RANGE

Start – End

S M T W T F S

November 2018

						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

December 2018

1 2 3 4 5 6

×

SAVE

SELECTED RANGE

Nov 17 – Nov 26

S M T W T F S

November 2018

						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

December 2018

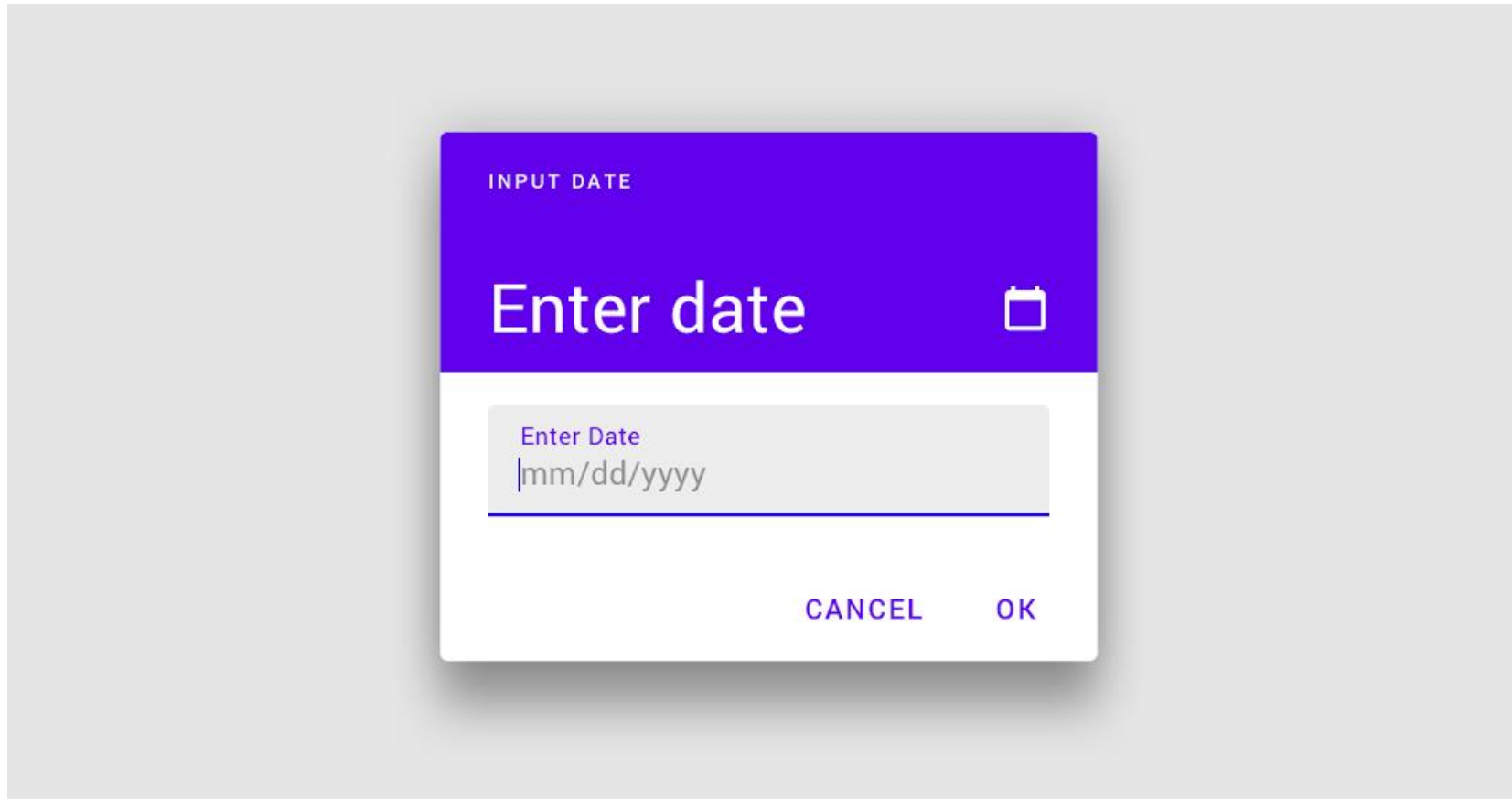
1 2 3 4 5

Mobile Date Input Picker

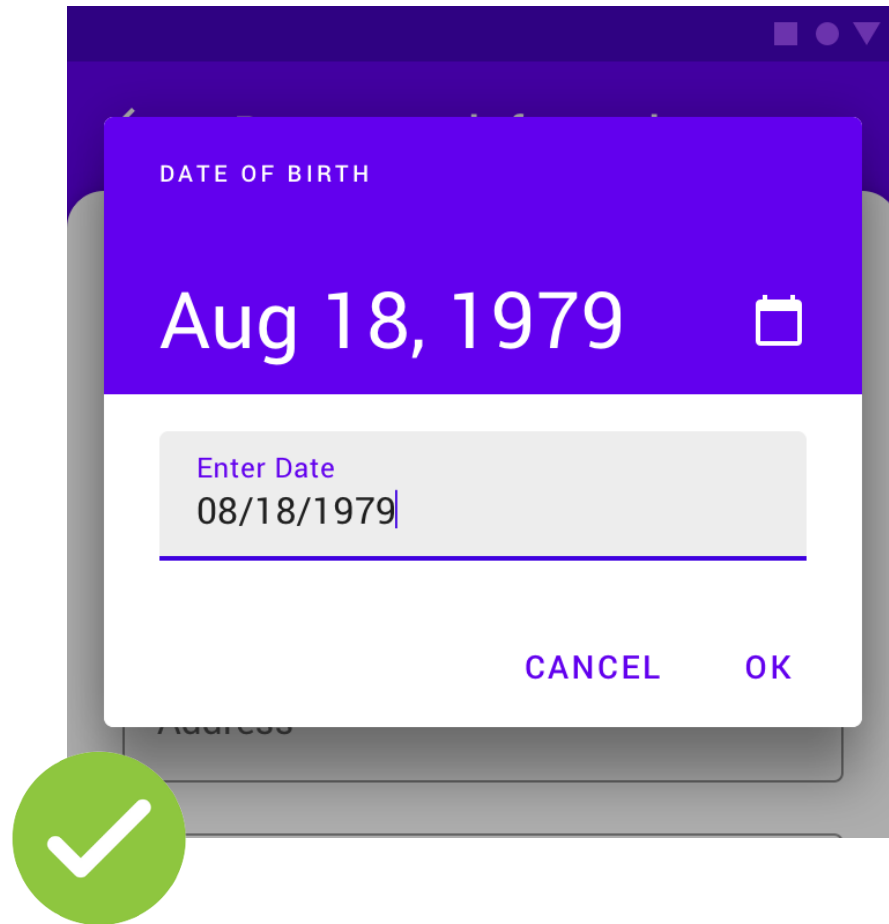
- User dapat memasukkan tanggal secara manual melalui keyboard
- Dapat input tanggal atau range tanggal di dialog



Mobile Date Input Picker



Mobile Date Input Picker



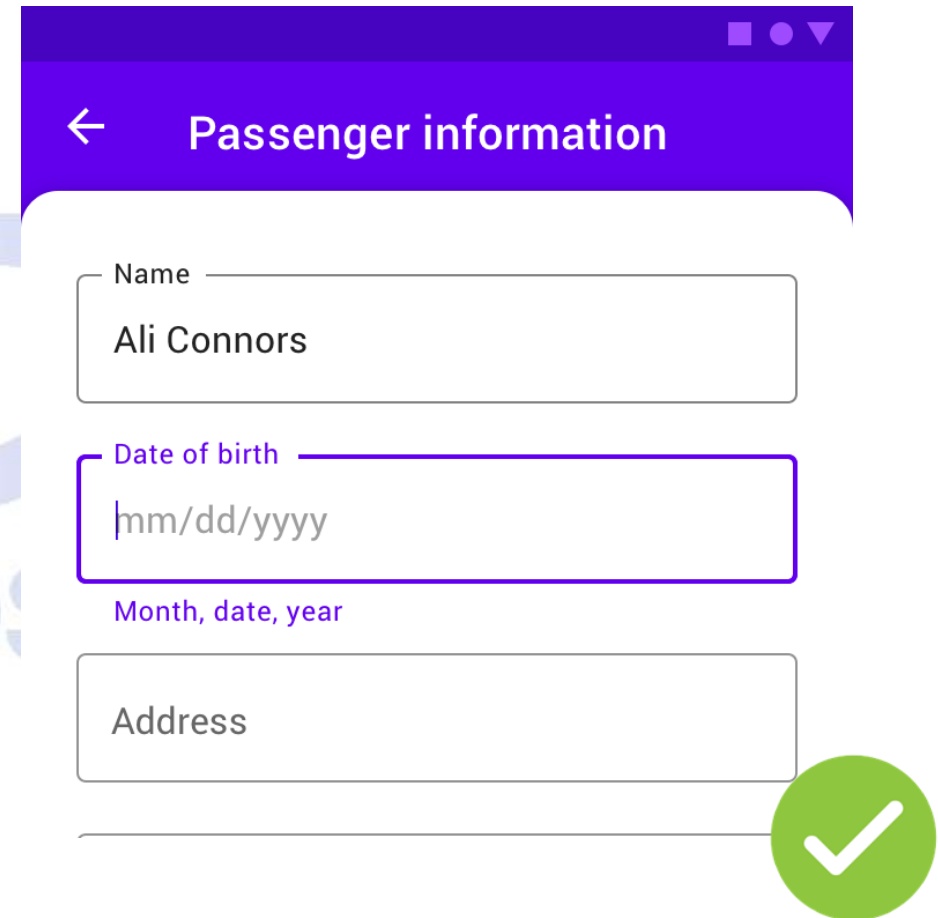
A mobile date input picker dialog. The top section is purple with the text "DATE OF BIRTH" and displays "Aug 18, 1979" next to a calendar icon. The bottom section is white and contains a text input field with the placeholder "Enter Date" and the text "08/18/1979". At the bottom are "CANCEL" and "OK" buttons. A green checkmark icon is at the bottom left.

DATE OF BIRTH

Aug 18, 1979

Enter Date
08/18/1979

CANCEL OK



A mobile form titled "Passenger information" with a back arrow. It contains three input fields: "Name" with the value "Ali Connors", "Date of birth" with a placeholder "mm/dd/yyyy" and a hint "Month, date, year", and "Address". A green checkmark icon is at the bottom right.

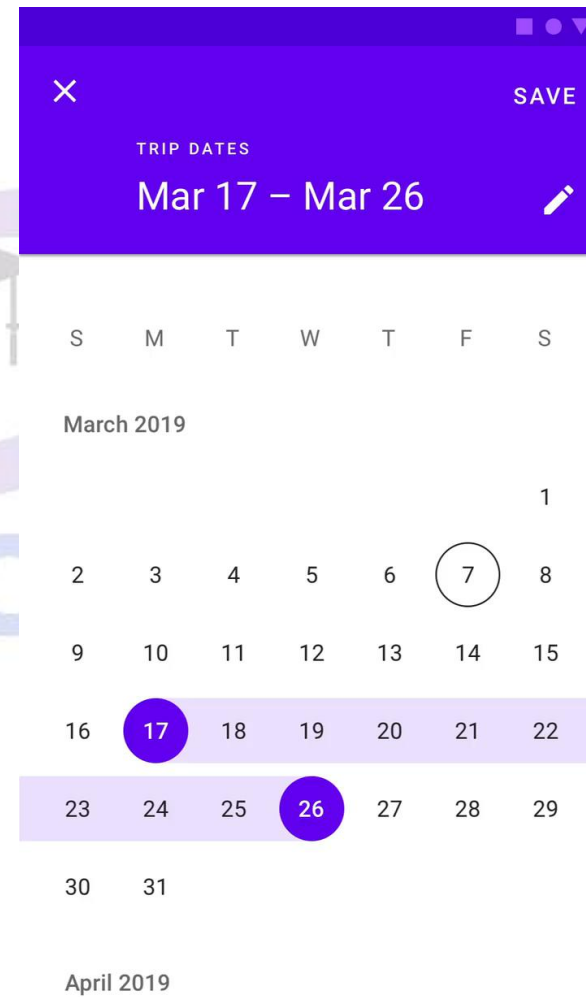
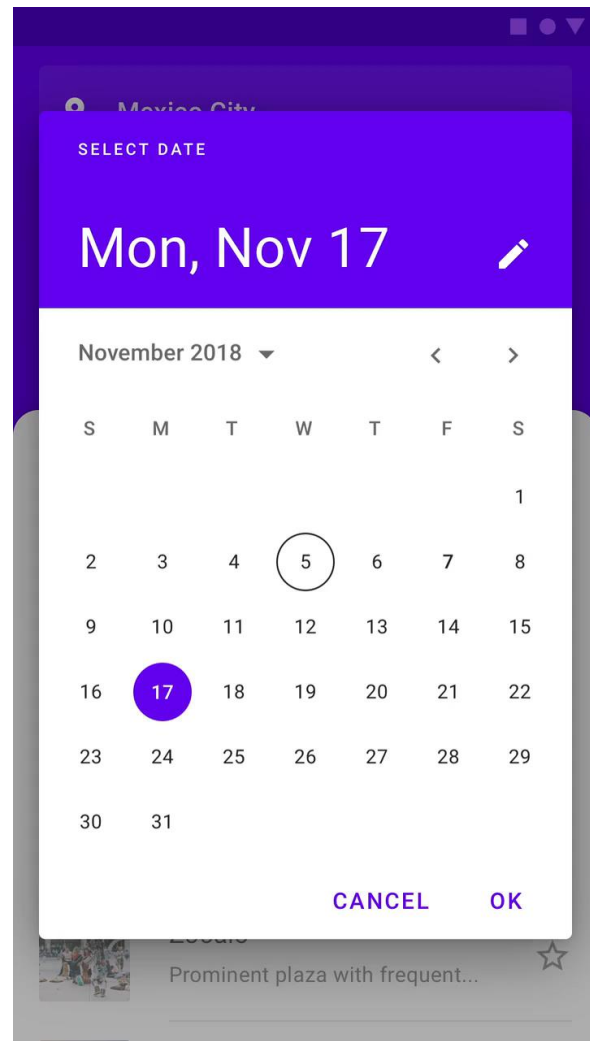
← Passenger information

Name
Ali Connors

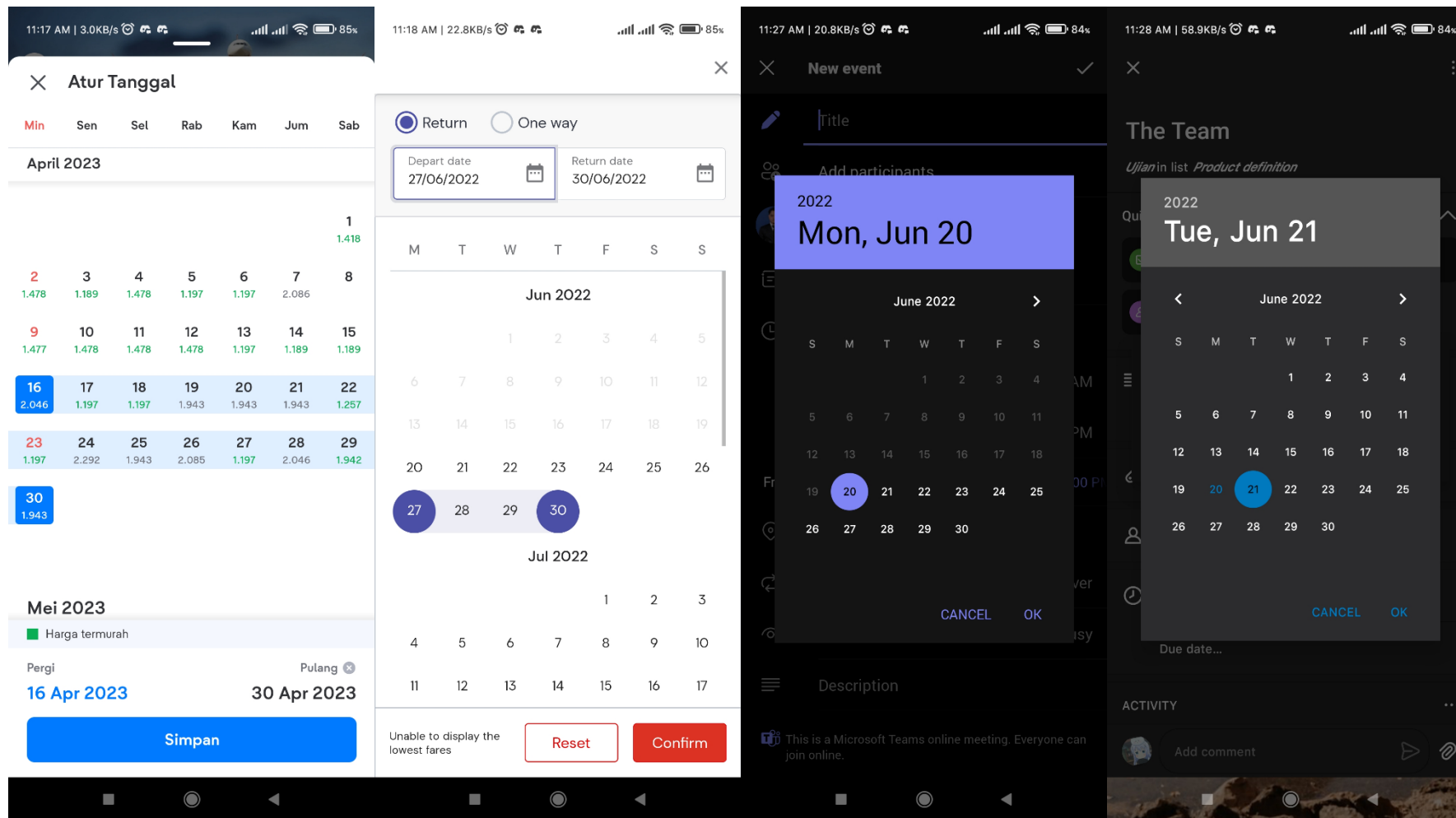
Date of birth
mm/dd/yyyy
Month, date, year

Address

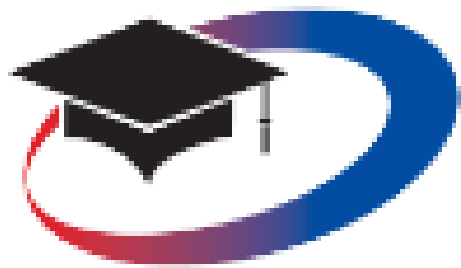
Behavior



Contoh Implementasi Date Picker



Penerapan di Flutter



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Implementasi di Flutter



```
final DateTime selected = await showDatePicker(  
  context: context,  
  initialDate: selectedDate,  
  firstDate: DateTime(2010),  
  lastDate: DateTime(2025),  
);
```

Implementasi di Flutter

```
Column(  
  mainAxisAlignment: MainAxisAlignment.center,  
  children: <Widget>[  
    RaisedButton(  
      onPressed: () {  
        _selectDate(context);  
      },  
      child: Text("Choose Date"),  
    ),  
    Text("${selectedDate.day}/${selectedDate.month}/${selectedDate.year}")  
  ],  
)
```

```
_selectDate(BuildContext context) async {  
  final DateTime selected = await showDatePicker(  
    context: context,  
    initialDate: selectedDate,  
    firstDate: DateTime(2010),  
    lastDate: DateTime(2025),  
  );  
  if (selected != null && selected != selectedDate)  
    setState(() {  
      selectedDate = selected;  
    });  
}
```

Property di showDatePicker

Property	Class/DataType	Deskripsi
initialDate	DateTime (@required)	Set Nilai DateTime awal Ketika DatePicker di panggil pertama kali
firstDate	DateTime (@required)	Set Nilai Date minimum yang user dapat pilih
lastDate	DateTime (@required)	Set Nilai Date maksimum yang user dapat pilih
currentDate	DateTime	Set Nilai Date hari ini. Jika tidak diisi, maka akan otomatis menggunakan function DateTime.now()
cancelText	ShapeBorder?	Set bentuk dari card
confirmText	EdgeInsetsGeometry?	Dipanggil saat pengguna memilih nilai dari menu popup yang dibuat oleh tombol

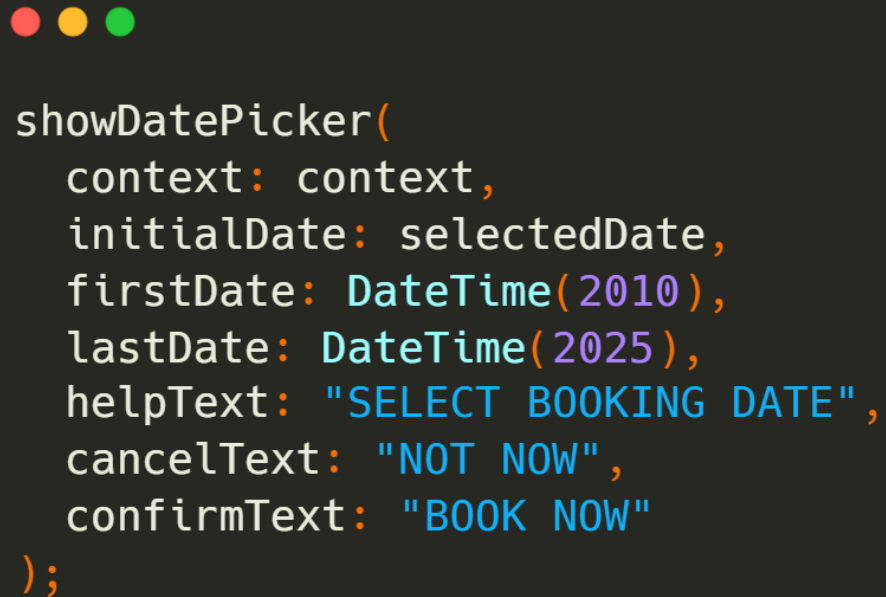
Property lain dapat dilihat [disini](#) dan [disini](#)

Property di showDatePicker

Property	Class/DataType	Deskripsi
helpText	String	Set Text Helper untuk DatePicker
errorFormatText	String	Set pesan Ketika format date salah
errorInvalid	String	Set pesan ketika tanggal keluar dari range start dan end date
fieldHintText	String	Set text keterangan hint
fieldLabelText	String	Set label dari date picker
locale	Locale	Set format tanggal sesuai dengan lokasi


Property lain dapat dilihat [disini](#) dan [disini](#)

Change Help Text, Cancel, and Ok Button Text



```
showDatePicker(  
    context: context,  
    initialDate: selectedDate,  
    firstDate: DateTime(2010),  
    lastDate: DateTime(2025),  
    helpText: "SELECT BOOKING DATE",  
    cancelText: "NOT NOW",  
    confirmText: "BOOK NOW"  
);
```

Change Label and Hint Text



```
showDatePicker(  
  context: context,  
  initialDate: selectedDate,  
  firstDate: DateTime(2010),  
  lastDate: DateTime(2025),  
  helpText: "SELECT BOOKING DATE",  
  cancelText: "NOT NOW",  
  confirmText: "BOOK NOW",  
  fieldHintText: "DATE/MONTH/YEAR",  
  fieldLabelText: "BOOKING DATE",  
);
```

Change Format Error and Invalid Error Text

```
showDatePicker(  
    context: context,  
    initialDate: selectedDate,  
    firstDate: DateTime(2010),  
    lastDate: DateTime(2025),  
    helpText: "SELECT BOOKING DATE",  
    cancelText: "NOT NOW",  
    confirmText: "BOOK NOW",  
    fieldHintText: "DATE/MONTH/YEAR",  
    fieldLabelText: "BOOKING DATE",  
    errorFormatText: "Enter a Valid Date",  
    errorInvalidText: "Date Out of Range"  
);
```

Show Year Picker First




```
showDatePicker(  
  context: context,  
  initialDate: selectedDate,  
  firstDate: DateTime(2010),  
  lastDate: DateTime(2025),  
  helpText: "SELECT BOOKING DATE",  
  cancelText: "NOT NOW",  
  confirmText: "BOOK NOW",  
  initialDatePickerMode: DatePickerMode.year  
);
```

Date Input Picker



```
showDatePicker(  
  context: context,  
  initialDate: selectedDate,  
  firstDate: DateTime(2010),  
  lastDate: DateTime(2025),  
  initialEntryMode: DatePickerEntryMode.input  
);
```

showDateRangePicker



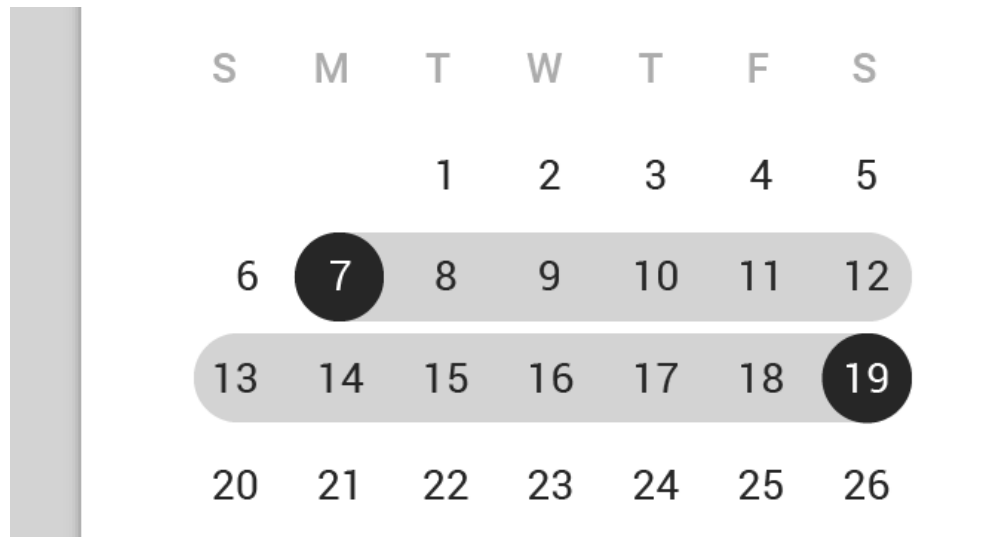
```
final DateTimeRange newDateRange = await showDateRangePicker(  
  context: context,  
  initialDateRange: DateTimeRange(  
    start: DateTime(2020, 11, 17),  
    end: DateTime(2020, 11, 24),  
  ),  
  firstDate: DateTime(2017, 1),  
  lastDate: DateTime(2022, 7),  
  helpText: 'Select a date',  
);
```

Property di showDateRangePicker

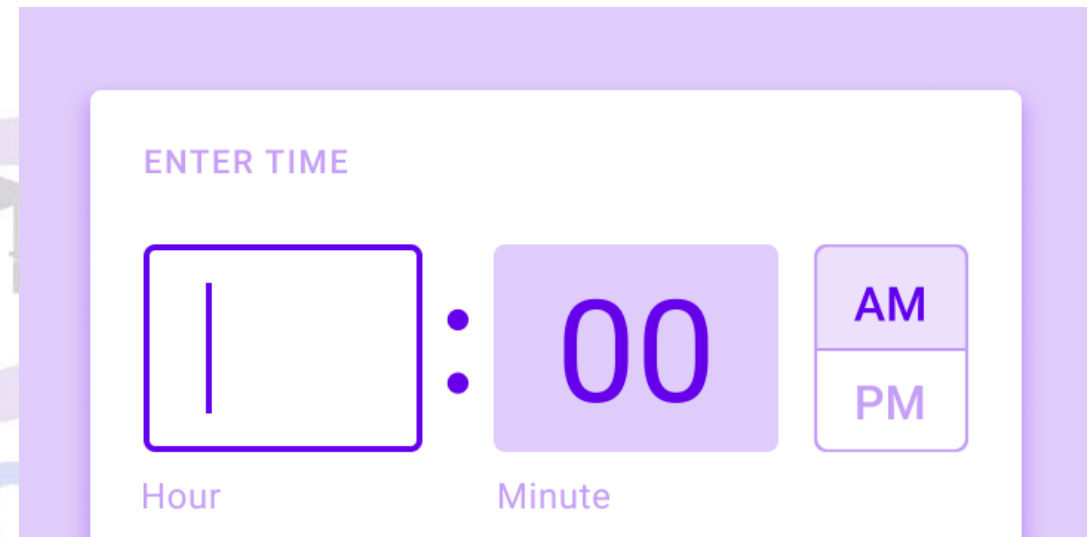
Property	Class/DataType	Deskripsi
initialDate	DateTimeRange (@required)	Set Nilai DateTime awal Ketika DatePicker di panggil pertama kali
firstDate	DateTime (@required)	Set Nilai Date minimum yang user dapat pilih
lastDate	DateTime (@required)	Set Nilai Date maksimum yang user dapat pilih
currentDate	DateTime	Set Nilai Date hari ini. Jika tidak diisi, maka akan otomatis menggunakan function DateTime.now()
cancelText	ShapeBorder?	Set bentuk dari card
confirmText	EdgeInsetsGeometry?	Dipanggil saat pengguna memilih nilai dari menu popup yang dibuat oleh tombol

Property lain dapat dilihat [disini](#)

Komponen dalam Mendesain Aplikasi Part. 11

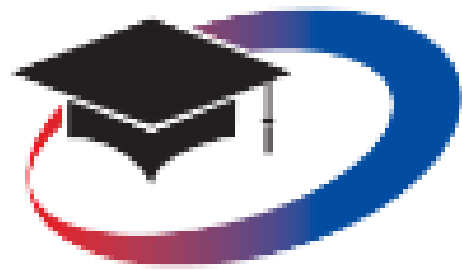


DatePicker



TimePicker

TimePicker

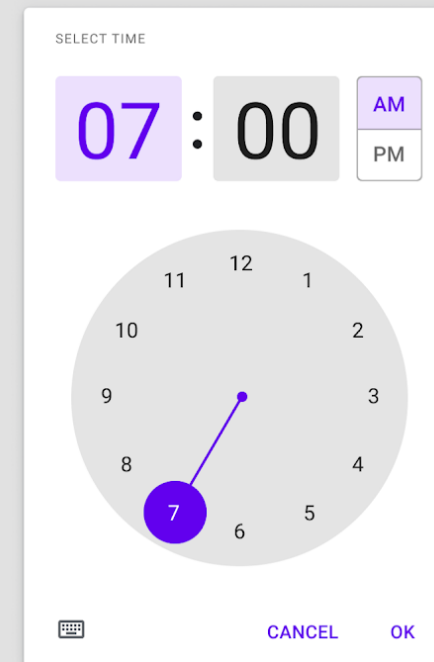


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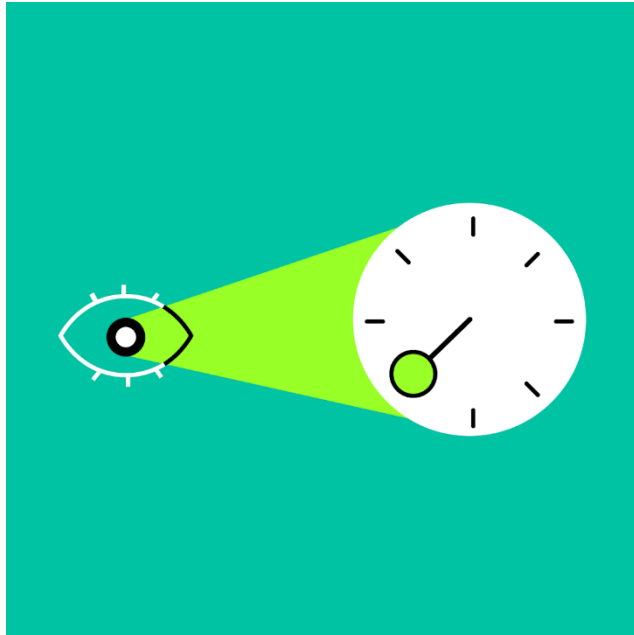
TimePicker adalah...

- User dapat memilih dan set Waktu secara spesifik
- Dapat digunakan untuk berbagai scenario lebih luas
- Dapat di implementasikan di
 - Setting Alarm
 - Penjadwalan meeting
- Dapat di tampilkan di dalam modal dan memilih jam, menit, dan period of time

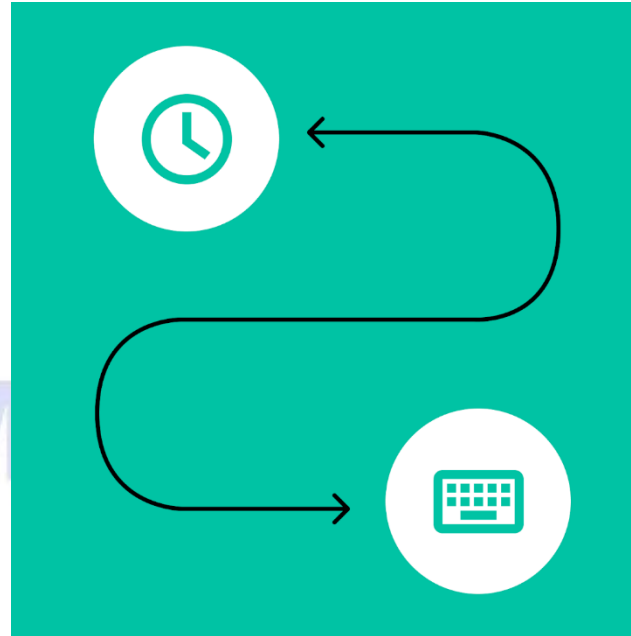


Prinsiple of TimePicker

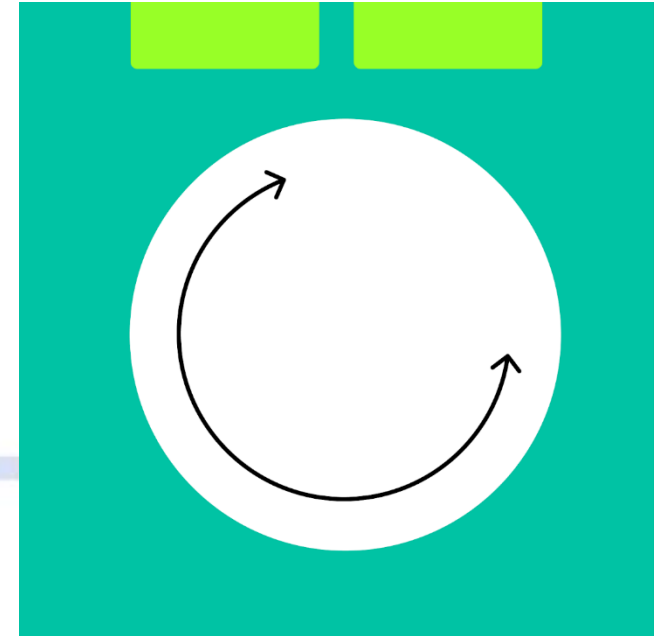
Familiar



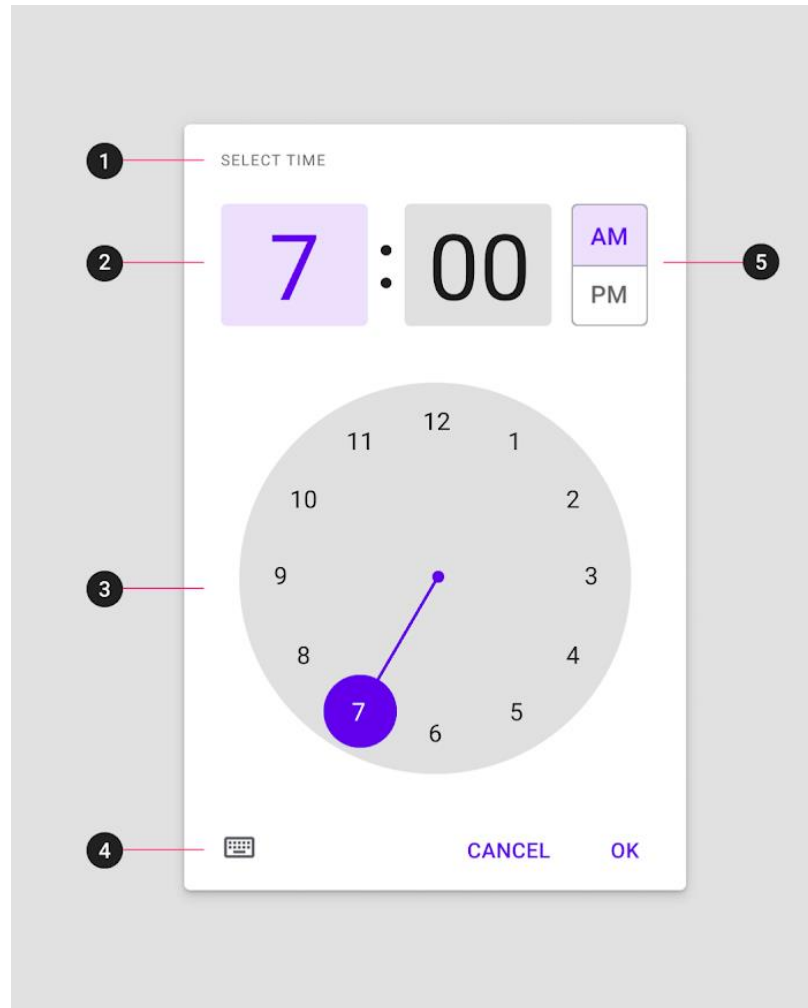
Flexible



Ergonomic



Anatomi pada TimePicker

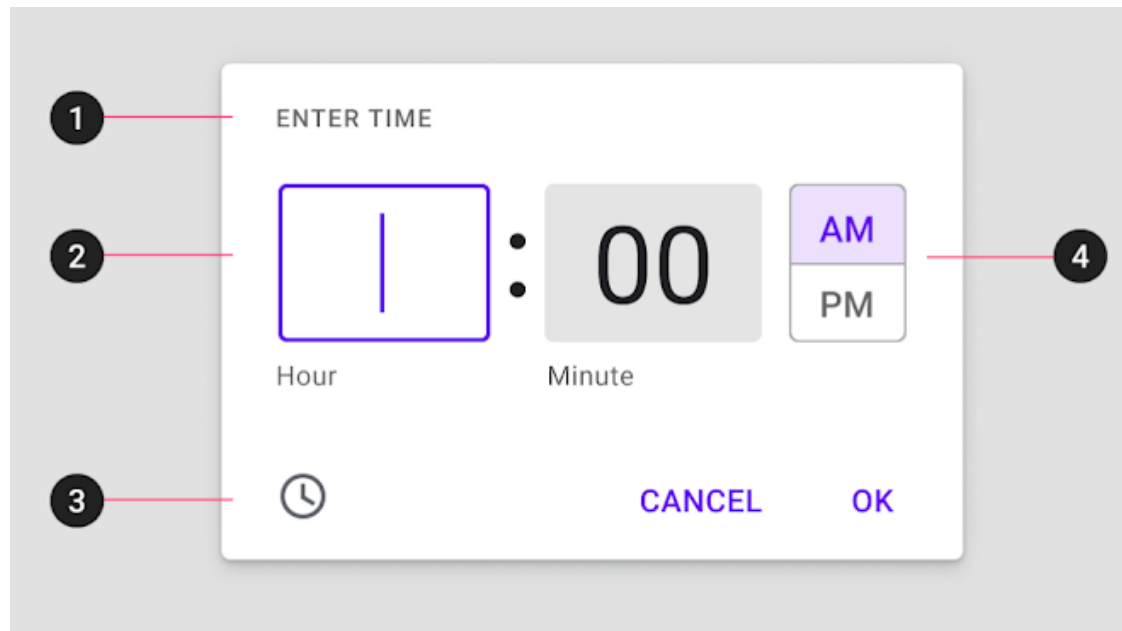


Mobile Time Picker

1. Title
2. Interactive display and time input for hour and minutes
3. Clock dial
4. Icon button to switch to time input
5. AM/PM selector

Anatomi pada TimePicker

Mobile Time Input



1. Title
2. Hour and minute input field
3. Icon button to switch to dial entry
4. AM/PM selector

Behavior

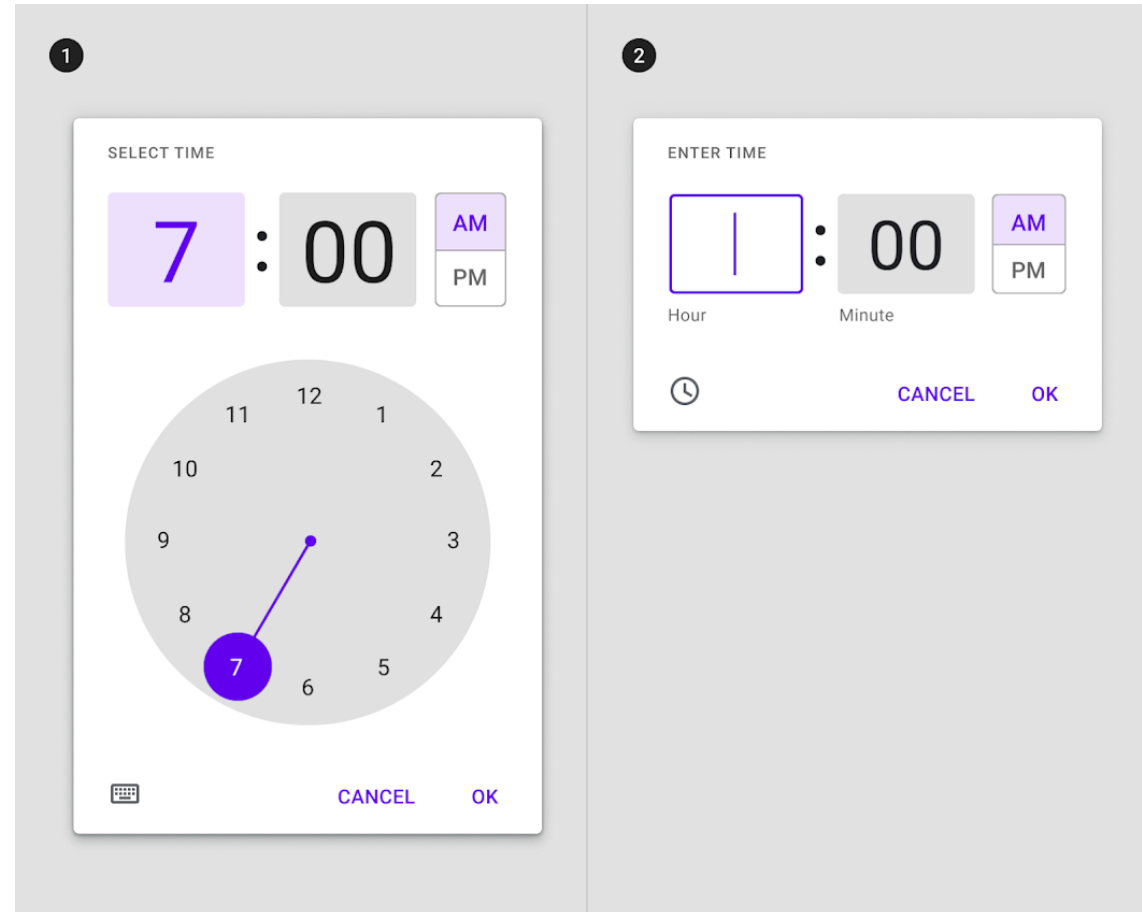
Ada 2 metode untuk memilih Waktu menggunakan mobile time picker

- Memasukkan nilai ke field jam dan menit
- Memilih field jam atau menit dari text input, kemudian atur clock dial dibawah untuk mengganti nilai field tersebut

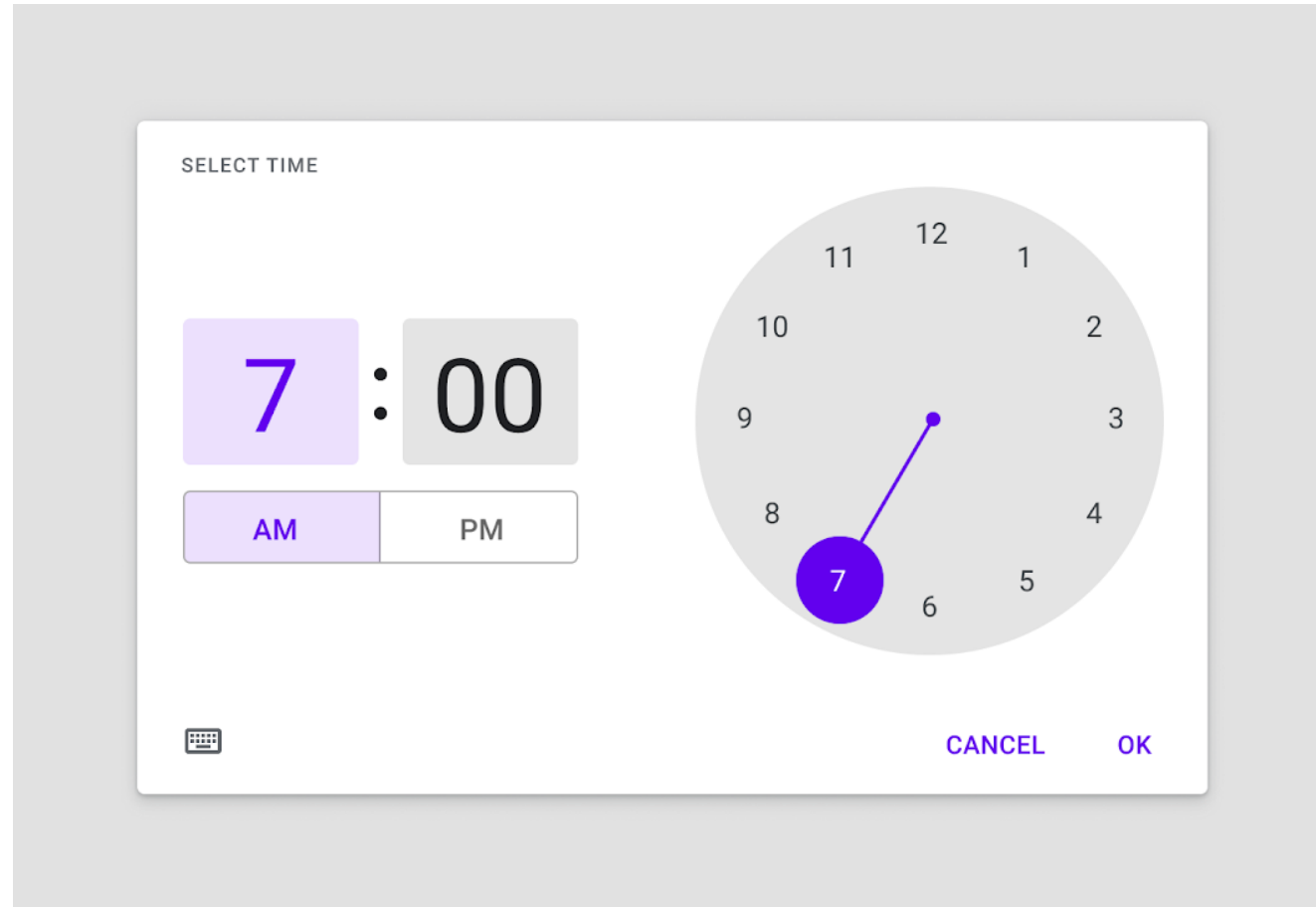


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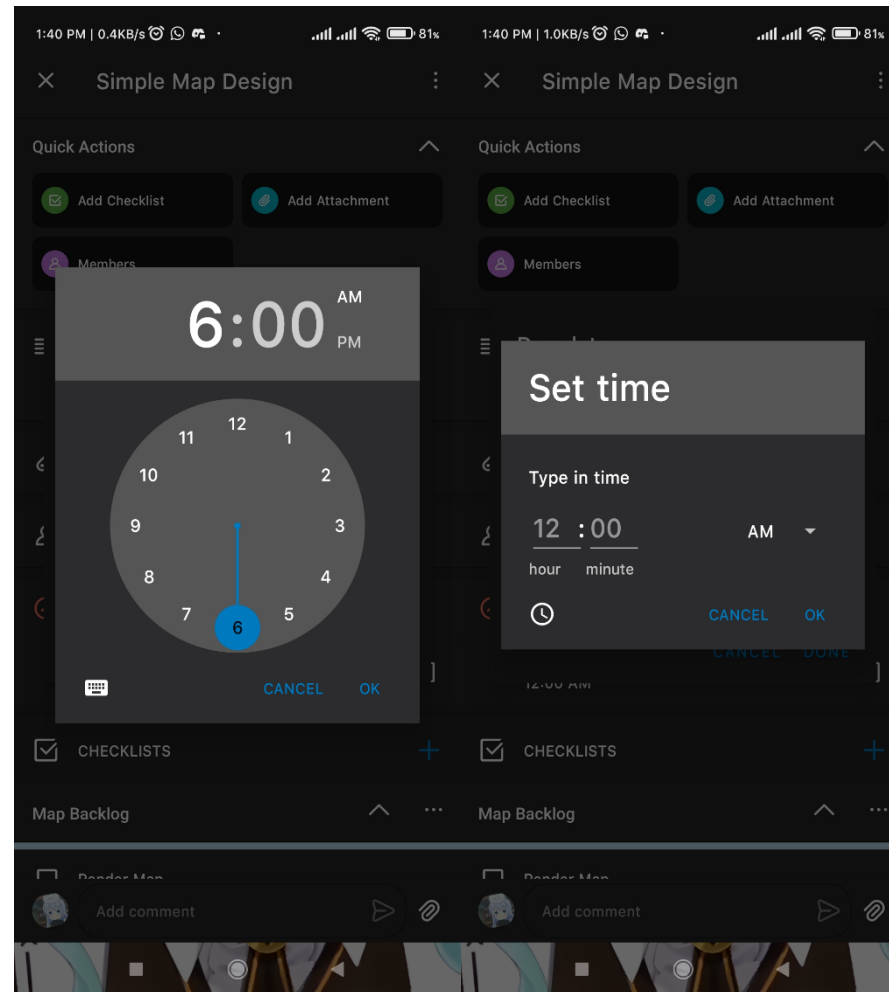
Behavior



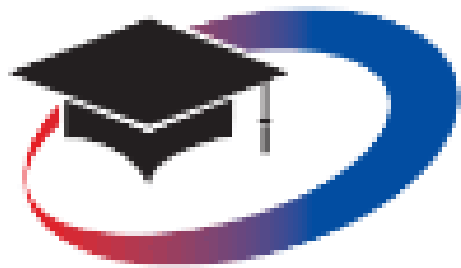
Behavior



Contoh Implementasi Time Picker



Penerapan di Flutter



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TimePicker



```
final TimeOfDay timeOfDay = await showTimePicker(  
  context: context,  
  initialTime: selectedTime,  
  initialEntryMode: TimePickerEntryMode.dial,  
);
```

TimePicker

```
Column(  
  mainAxisAlignment: MainAxisAlignment.center,  
  children: <Widget>[  
    ElevatedButton(  
      onPressed: () {  
        _selectTime(context);  
      },  
      child: Text("Choose Time"),  
    ),  
    Text("${selectedTime.hour}:${selectedTime.minute}"),  
  ],  
)
```

```
_selectTime(BuildContext context) async {  
  final TimeOfDay timeOfDay = await showTimePicker(  
    context: context,  
    initialTime: selectedTime,  
    initialEntryMode: TimePickerEntryMode.dial,  
  );  
  if(timeOfDay != null && timeOfDay != selectedTime)  
  {  
    setState(() {  
      selectedTime = timeOfDay;  
    });  
  }  
}
```


Property di showTimePicker

Property	Class/DataType	Deskripsi
initialTime	TimeOfDay	Set Waktu Ketika timepicker pertama kali muncul
initialEntryMode	TimePickerEntryMode	Set Mode dari TimePicker
cancelText	String?	Set Text tombol cancel
confirmText	String?	Set Text tombol confirm
helpText	String?	Set label bantuan timepicker

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Property lain dapat dilihat [disini](#) dan [disini](#)

Change Help Text, Cancel, and OK button Text



```
showTimePicker(  
    context: context,  
    initialTime: selectedTime,  
    initialEntryMode: TimePickerEntryMode.dial,  
    confirmText: "CONFIRM",  
    cancelText: "NOT NOW",  
    helpText: "BOOKING TIME"  
);
```

Mobile Time Input



```
showTimePicker(  
  context: context,  
  initialTime: selectedTime,  
  initialEntryMode: TimePickerEntryMode.input,  
  confirmText: "CONFIRM",  
  cancelText: "NOT NOW",  
  helpText: "BOOKING TIME",  
);
```


Terima Kasih

