

Assignment No.: 04

Title: Creating an Interactive Form using Flutter Form Widget

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Aim:

To create an interactive form using the Flutter Form widget, implementing validation and submission logic.

Theory:

In Flutter, the Form widget combined with a GlobalKey<FormState> allows you to manage form validation and state efficiently. Forms typically consist of one or more TextFormFields, optional dropdowns or checkboxes, and a submit button. The FormState object provides methods like .validate() and .save() to process user input.

Steps:

1. Define a GlobalKey<FormState> to track form state.
2. Use TextFormField for inputs with built-in validation.
3. Add DropdownButtonFormField for selectable values.
4. Use a Checkbox for toggle options.
5. Use ElevatedButton to trigger validation and submission logic.

Extracted Code Based on Urban Rush App Style:

```
final _formKey = GlobalKey<FormState>();
String _name = "";
String _email = "";
String _selectedGender = 'Male';
bool _subscribeToNewsletter = false;

Form(
  key: _formKey,
  child: Column(
    crossAxisAlignment: CrossAxisAlignment.start,
    children: [
      TextFormField(
        decoration: InputDecoration(labelText: 'Name'),
        validator: (value) {
          if (value == null || value.isEmpty) {
            return 'Please enter your name';
          }
        }
      )
    ]
  )
)
```

```

    }
    return null;
  },
  onSave: (value) {
    _name = value!;
  },
),
 SizedBox(height: 12),
 TextFormField(
  decoration: InputDecoration(labelText: 'Email'),
  validator: (value) {
    if (value == null || value.isEmpty || !value.contains('@')) {
      return 'Please enter a valid email address';
    }
    return null;
  },
  onSave: (value) {
    _email = value!;
  },
),
 SizedBox(height: 12),
 DropdownButtonFormField<String>(
  decoration: InputDecoration(labelText: 'Gender'),
  value: _selectedGender,
  items: ['Male', 'Female', 'Other'].map((gender) {
    return DropdownMenuItem(value: gender, child: Text(gender));
  }).toList(),
  onChanged: (value) {
    _selectedGender = value!;
  },
),
 Row(
  children: [
    Checkbox(
      value: _subscribeToNewsletter,
      onChanged: (value) {
        _subscribeToNewsletter = value ?? false;
      },
    ),
    Text('Subscribe to Newsletter'),
  ],

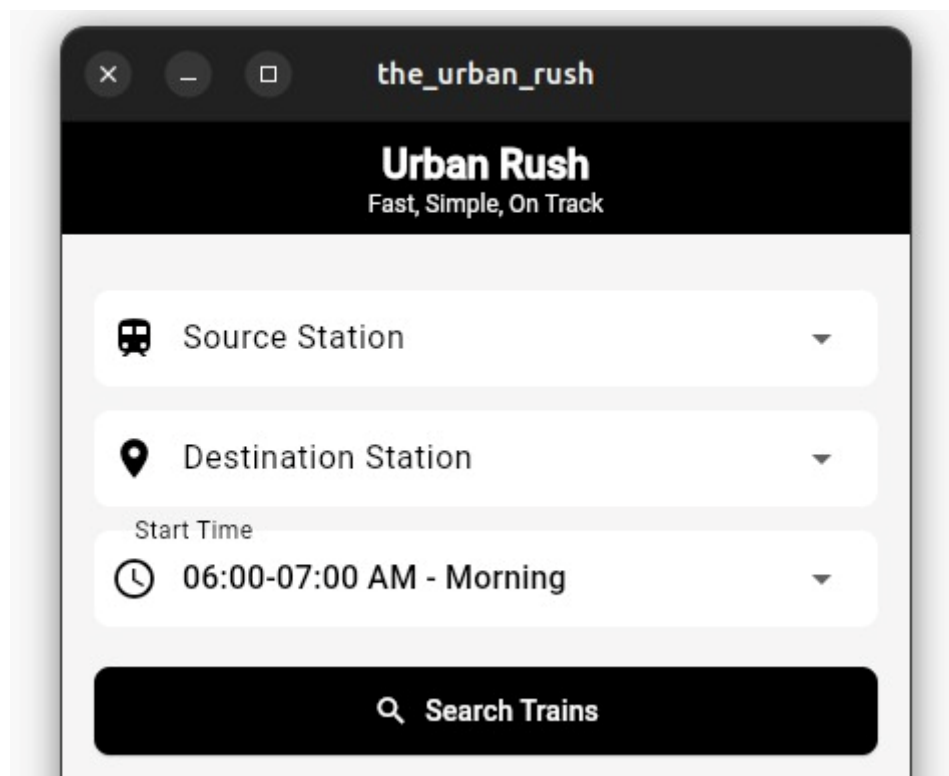
```

```

),
  SizedBox(height: 16),
  SizedBox(
    width: double.infinity,
    child: ElevatedButton(
      onPressed: () {
        if (_formKey.currentState!.validate()) {
          _formKey.currentState!.save();
          print('Name: $_name');
          print('Email: $_email');
          print('Gender: $_selectedGender');
          print('Subscribe to Newsletter: $_subscribeToNewsletter');
        }
      },
      child: Text('Submit'),
    ),
  ),
],
),
)

```

Output:



Conclusion:

The form successfully collects and validates user input using TextFormField, DropdownButtonFormField, and Checkbox, with state handled by GlobalKey<FormState>. Upon submission, the entered data is processed, meeting all the outlined assignment requirements.