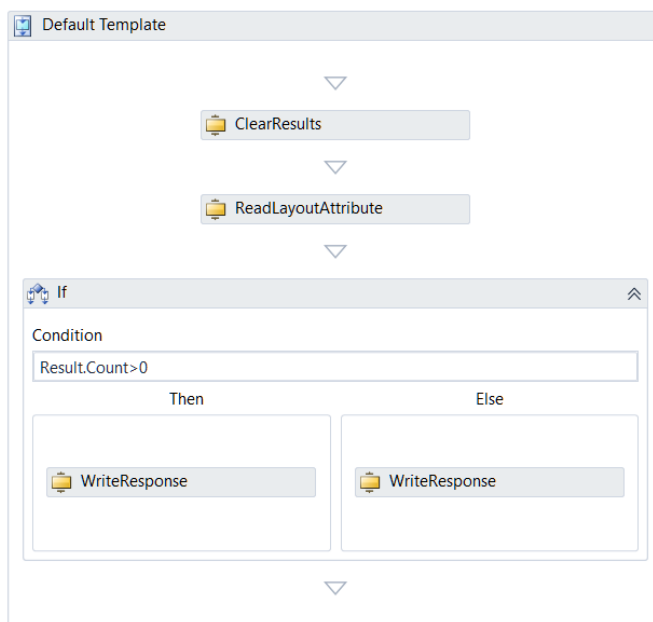# Validation Cases for Android

1. **First-time user has multiple sign-up options (e.g.,username / password and social sign-up facebook.com, google, twitter).** Users should be presented with multiple sign-up options, such as username / email and password, and social sign-up. Because, while some users may prefer the faster approach of social sign-up (e.g. via G+, Facebook or Twitter), others may prefer to keep their different social profiles separate, and others again may not even be consumers of social networks.

   Steps required to validate complete guideline: To validate the presence of this guideline we need to check the presence of three most popular social media logins i.e. Facebook, Google and Twitter.

   a) **Check presence of Facebook login button**: Below is screenshot of validation case to check the presence of Facebook button. As per facebook guideline to add a facebook in Android there a specific way to add a button "<com.facebook.login.widget.LoginButton />" in Activity XML. To write a validation case all we need to check the presence of this specific button XML.

Validation case XML generated which checks the presence of "com.facebook.login.widget.LoginButton" in XML

```
<Activity mc:Ignorable="sads sap" x:Class="Activity Builder"
 xmlns="http://schemas.microsoft.com/netfx/2009/xaml/activities"
 xmlns:a="clr-namespace:ActivityLibrary;assembly=ActivityLibrary"
 xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
 xmlns:mva="clr-
namespace:Microsoft.VisualBasic.Activities;assembly=System.Activities"
 xmlns:s="clr-namespace:System;assembly=mscorlib"
 xmlns:s1="clr-namespace:System;assembly=System"
```

```
  xmlns:s2="clr-namespace:System;assembly=System.Core"
  xmlns:s3="clr-namespace:System;assembly=System.ServiceModel"
  xmlns:sa="clr-namespace:System.Activities;assembly=System.Activities"

xmlns:sads="http://schemas.microsoft.com/netfx/2010/xaml/activities/debugger"

xmlns:sap="http://schemas.microsoft.com/netfx/2009/xaml/activities/presentati
on"
  xmlns:scg="clr-namespace:System.Collections.Generic;assembly=mscorlib"
  xmlns:scg1="clr-namespace:System.Collections.Generic;assembly=System.Core"
  xmlns:scg2="clr-namespace:System.Collections.Generic;assembly=System"
  xmlns:scg3="clr-
namespace:System.Collections.Generic;assembly=System.ServiceModel"
  xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml">
   <x:Members>
     <x:Property Name="ControlIdList"
Type="OutArgument(scg:Dictionary(x:String, scg:IList(x:String)))" />
   </x:Members>

<sap:VirtualizedContainerService.HintSize>526,491</sap:VirtualizedContainerSe
rvice.HintSize>
   <mva:VisualBasic.Settings>Assembly references and imported namespaces for
internal implementation</mva:VisualBasic.Settings>
   <Sequence DisplayName="CheckFacebookLogin"
sap:VirtualizedContainerService.HintSize="486,451">
     <sap:WorkflowViewStateService.ViewState>
       <scg:Dictionary x:TypeArguments="x:String, x:Object">
         <x:Boolean x:Key="IsExpanded">True</x:Boolean>
       </scg:Dictionary>
     </sap:WorkflowViewStateService.ViewState>
     <a:ClearResults sap:VirtualizedContainerService.HintSize="464,22" />
     <a:ReadLayoutAttribute AttributesToRead="android:id"
sap:VirtualizedContainerService.HintSize="464,22" Result="[ControlIdList]"
XPath="//com.facebook.login.widget.LoginButton" />
     <If Condition="[ControlIdList.Count&gt;0]"
sap:VirtualizedContainerService.HintSize="464,203">
       <If.Then>
         <a:WriteResponse sap:VirtualizedContainerService.HintSize="200,22"
IsPassed="True" ResponseText="Facebook button present" />
       </If.Then>
       <If.Else>
         <a:WriteResponse sap:VirtualizedContainerService.HintSize="200,22"
IsPassed="False" ResponseText="Facebook button not present" />
       </If.Else>
     </If>
   </Sequence>
</Activity>
```

b) **Check presence of twitter login button**: similar to above facebook button detection logic, we will look for twitter button XML i.e. "<com.twitter.sdk.android.core.identity.TwitterLoginButton />".

```
<Activity mc:Ignorable="sads sap" x:Class="Activity Builder"
 xmlns="http://schemas.microsoft.com/netfx/2009/xaml/activities"
```

```xml
 xmlns:a="clr-namespace:ActivityLibrary;assembly=ActivityLibrary"
 xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
 xmlns:mva="clr-
namespace:Microsoft.VisualBasic.Activities;assembly=System.Activities"
 xmlns:s="clr-namespace:System;assembly=mscorlib"
 xmlns:s1="clr-namespace:System;assembly=System"
 xmlns:s2="clr-namespace:System;assembly=System.Core"
 xmlns:sa="clr-namespace:System.Activities;assembly=System.Activities"

xmlns:sads="http://schemas.microsoft.com/netfx/2010/xaml/activities/debugger"

xmlns:sap="http://schemas.microsoft.com/netfx/2009/xaml/activities/presentati
on"
 xmlns:scg="clr-namespace:System.Collections.Generic;assembly=mscorlib"
 xmlns:scg1="clr-namespace:System.Collections.Generic;assembly=System.Core"
 xmlns:scg2="clr-namespace:System.Collections.Generic;assembly=System"
 xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml">
  <x:Members>
    <x:Property Name="ControlIdList"
Type="OutArgument(scg:Dictionary(x:String, scg:IList(x:String)))" />
  </x:Members>

<sap:VirtualizedContainerService.HintSize>526,491</sap:VirtualizedContainerSe
rvice.HintSize>
  <mva:VisualBasic.Settings>Assembly references and imported namespaces for
internal implementation</mva:VisualBasic.Settings>
  <Sequence DisplayName="Default Template"
sap:VirtualizedContainerService.HintSize="486,451">
    <sap:WorkflowViewStateService.ViewState>
      <scg:Dictionary x:TypeArguments="x:String, x:Object">
        <x:Boolean x:Key="IsExpanded">True</x:Boolean>
      </scg:Dictionary>
    </sap:WorkflowViewStateService.ViewState>
    <a:ClearResults sap:VirtualizedContainerService.HintSize="464,22" />
    <a:ReadLayoutAttribute AttributesToRead="android:id"
sap:VirtualizedContainerService.HintSize="464,22" Result="[ControlIdList]"
XPath="//com.twitter.sdk.android.core.identity.TwitterLoginButton" />
    <If Condition="[ControlIdList.Count&gt;0]"
sap:VirtualizedContainerService.HintSize="464,203">
      <If.Then>
        <a:WriteResponse sap:VirtualizedContainerService.HintSize="200,22"
IsPassed="True" ResponseText="Twitter button is present" />
      </If.Then>
      <If.Else>
        <a:WriteResponse sap:VirtualizedContainerService.HintSize="200,22"
IsPassed="False" ResponseText="Twitter button is not present" />
      </If.Else>
    </If>
  </Sequence>
</Activity>
```

c) **Check presence of Google login button:** similar to above facebook button detection logic, we will look for google button XML i.e. "<com.google.android.gms.common.SignInButton />".

```xml
<Activity mc:Ignorable="sads sap" x:Class="Activity Builder"
 xmlns="http://schemas.microsoft.com/netfx/2009/xaml/activities"
```

```xml
  xmlns:a="clr-namespace:ActivityLibrary;assembly=ActivityLibrary"
  xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
  xmlns:mva="clr-
namespace:Microsoft.VisualBasic.Activities;assembly=System.Activities"
  xmlns:s="clr-namespace:System;assembly=mscorlib"
  xmlns:s1="clr-namespace:System;assembly=System"
  xmlns:s2="clr-namespace:System;assembly=System.Core"
  xmlns:s3="clr-namespace:System;assembly=System.ServiceModel"
  xmlns:sa="clr-namespace:System.Activities;assembly=System.Activities"

xmlns:sads="http://schemas.microsoft.com/netfx/2010/xaml/activities/debugger"

xmlns:sap="http://schemas.microsoft.com/netfx/2009/xaml/activities/presentati
on"
  xmlns:scg="clr-namespace:System.Collections.Generic;assembly=mscorlib"
  xmlns:scg1="clr-namespace:System.Collections.Generic;assembly=System.Core"
  xmlns:scg2="clr-namespace:System.Collections.Generic;assembly=System"
  xmlns:scg3="clr-
namespace:System.Collections.Generic;assembly=System.ServiceModel"
  xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml">
  <x:Members>
    <x:Property Name="ControlIdList"
Type="OutArgument(scg:Dictionary(x:String, scg:IList(x:String)))" />
  </x:Members>

<sap:VirtualizedContainerService.HintSize>526,491</sap:VirtualizedContainerSe
rvice.HintSize>
  <mva:VisualBasic.Settings>Assembly references and imported namespaces for
internal implementation</mva:VisualBasic.Settings>
  <Sequence DisplayName="Check Twitter Login Button"
sap:VirtualizedContainerService.HintSize="486,451">
    <sap:WorkflowViewStateService.ViewState>
      <scg:Dictionary x:TypeArguments="x:String, x:Object">
        <x:Boolean x:Key="IsExpanded">True</x:Boolean>
      </scg:Dictionary>
    </sap:WorkflowViewStateService.ViewState>
    <a:ClearResults sap:VirtualizedContainerService.HintSize="464,22" />
    <a:ReadLayoutAttribute AttributesToRead="android:id"
sap:VirtualizedContainerService.HintSize="464,22" Result="[ControlIdList]"
XPath="//com.google.android.gms.common.SignInButton" />
    <If Condition="[ControlIdList.Count&gt;0]"
sap:VirtualizedContainerService.HintSize="464,203">
      <If.Then>
        <a:WriteResponse sap:VirtualizedContainerService.HintSize="200,22"
IsPassed="True" ResponseText="Google Sign In button present" />
      </If.Then>
      <If.Else>
        <a:WriteResponse sap:VirtualizedContainerService.HintSize="200,22"
IsPassed="False" ResponseText="Google Sign In button not present" />
      </If.Else>
    </If>
  </Sequence>
</Activity>
```
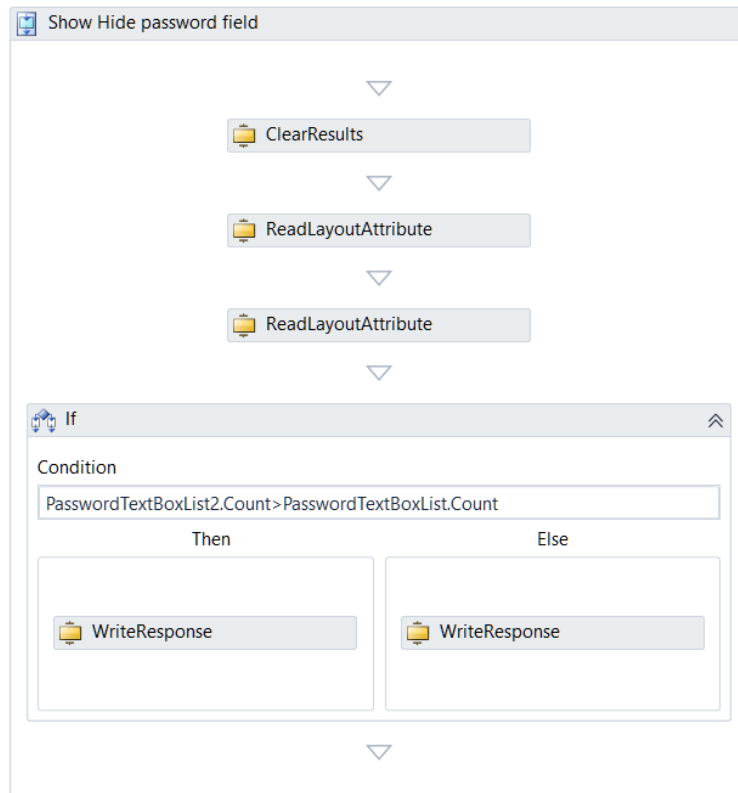
2. **User can select to reveal or hide password as they type, during signup or sign-in.** Give users the option to quickly select a toggle control that reveals - or hides - their password as they type. This will reduce password input mistakes, during sign-up and sign-in.


```
Show Hide password field
                          ▽
                     📋 ClearResults
                          ▽
                     📋 ReadLayoutAttribute
                          ▽
                     📋 ReadLayoutAttribute
                          ▽
  If                                                    ⌃
  Condition
  PasswordTextBoxList2.Count>PasswordTextBoxList.Count
         Then                              Else

      📋 WriteResponse                  📋 WriteResponse

                          ▽
```

```xml
<Activity mc:Ignorable="sads sap" x:Class="Activity Builder"
 xmlns="http://schemas.microsoft.com/netfx/2009/xaml/activities"
 xmlns:a="clr-namespace:ActivityLibrary;assembly=ActivityLibrary"
 xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
 xmlns:mva="clr-
namespace:Microsoft.VisualBasic.Activities;assembly=System.Activities"
 xmlns:s="clr-namespace:System;assembly=mscorlib"
 xmlns:s1="clr-namespace:System;assembly=System"
 xmlns:s2="clr-namespace:System;assembly=System.Core"
 xmlns:s3="clr-namespace:System;assembly=System.ServiceModel"
 xmlns:sa="clr-namespace:System.Activities;assembly=System.Activities"

xmlns:sads="http://schemas.microsoft.com/netfx/2010/xaml/activities/debugger"

xmlns:sap="http://schemas.microsoft.com/netfx/2009/xaml/activities/presentati
on"
 xmlns:scg="clr-namespace:System.Collections.Generic;assembly=mscorlib"
 xmlns:scg1="clr-namespace:System.Collections.Generic;assembly=System.Core"
 xmlns:scg2="clr-namespace:System.Collections.Generic;assembly=System"
 xmlns:scg3="clr-
namespace:System.Collections.Generic;assembly=System.ServiceModel"
```
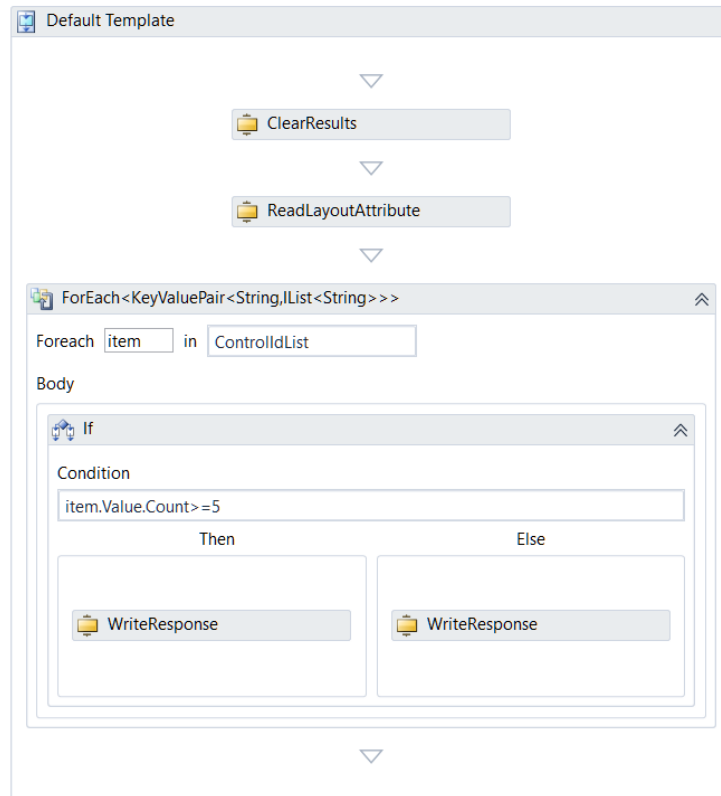
```xml
  xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml">
   <x:Members>
     <x:Property Name="PasswordTextBoxList"
Type="OutArgument(scg:Dictionary(x:String, scg:IList(x:String)))" />
     <x:Property Name="PasswordTextBoxList2"
Type="OutArgument(scg:Dictionary(x:String, scg:IList(x:String)))" />
   </x:Members>

<sap:VirtualizedContainerService.HintSize>526,553</sap:VirtualizedContainerSe
rvice.HintSize>
   <mva:VisualBasic.Settings>Assembly references and imported namespaces for
internal implementation</mva:VisualBasic.Settings>
   <Sequence DisplayName="Show Hide password field"
sap:VirtualizedContainerService.HintSize="486,513">
     <sap:WorkflowViewStateService.ViewState>
       <scg:Dictionary x:TypeArguments="x:String, x:Object">
         <x:Boolean x:Key="IsExpanded">True</x:Boolean>
       </scg:Dictionary>
     </sap:WorkflowViewStateService.ViewState>
     <a:ClearResults sap:VirtualizedContainerService.HintSize="464,22" />
     <a:ReadLayoutAttribute AttributesToRead="android:id"
sap:VirtualizedContainerService.HintSize="464,22"
Result="[PasswordTextBoxList]"
XPath="//android.support.design.widget.TextInputLayout/EditText[@android:inpu
tType='textPassword']" />
     <a:ReadLayoutAttribute AttributesToRead="android:id"
sap:VirtualizedContainerService.HintSize="464,22"
Result="[PasswordTextBoxList2]"
XPath="//EditText[@android:inputType='textPassword']" />
     <If Condition="[PasswordTextBoxList.Count&gt;0]"
sap:VirtualizedContainerService.HintSize="464,203">
       <sap:WorkflowViewStateService.ViewState>
         <scg:Dictionary x:TypeArguments="x:String, x:Object">
           <x:Boolean x:Key="IsExpanded">True</x:Boolean>
           <x:Boolean x:Key="IsPinned">False</x:Boolean>
         </scg:Dictionary>
       </sap:WorkflowViewStateService.ViewState>
       <If.Then>
         <a:WriteResponse sap:VirtualizedContainerService.HintSize="200,22"
IsPassed="True" ResponseText=" User is able to show/hide passwords" />
       </If.Then>
       <If.Else>
         <a:WriteResponse sap:VirtualizedContainerService.HintSize="200,22"
IsPassed="False" ResponseText="User will not be able to use show/hide
password option decorate password fields with
android.support.design.widget.TextInputLayout" />
       </If.Else>
     </If>
   </Sequence>
</Activity>
```

3. **Do not ask for too many inputs from user.**

```xml
<Activity mc:Ignorable="sads sap" x:Class="Activity Builder"
 xmlns="http://schemas.microsoft.com/netfx/2009/xaml/activities"
 xmlns:a="clr-namespace:ActivityLibrary;assembly=ActivityLibrary"
 xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
 xmlns:mva="clr-
namespace:Microsoft.VisualBasic.Activities;assembly=System.Activities"
 xmlns:s="clr-namespace:System;assembly=mscorlib"
 xmlns:s1="clr-namespace:System;assembly=System"
 xmlns:s2="clr-namespace:System;assembly=System.Core"
 xmlns:s3="clr-namespace:System;assembly=System.ServiceModel"
 xmlns:sa="clr-namespace:System.Activities;assembly=System.Activities"

xmlns:sads="http://schemas.microsoft.com/netfx/2010/xaml/activities/debugger"

xmlns:sap="http://schemas.microsoft.com/netfx/2009/xaml/activities/presentati
on"
 xmlns:scg="clr-namespace:System.Collections.Generic;assembly=mscorlib"
 xmlns:scg1="clr-
namespace:System.Collections.Generic;assembly=System.ServiceModel"
 xmlns:scg2="clr-namespace:System.Collections.Generic;assembly=System.Core"
 xmlns:scg3="clr-namespace:System.Collections.Generic;assembly=System"
 xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml">
  <x:Members>
    <x:Property Name="ControlIdList"
Type="InOutArgument(scg:Dictionary(x:String, scg:IList(x:String)))" />
    <x:Property Name="argument1" Type="InArgument(x:String)" />
  </x:Members>
```

```xml
<sap:VirtualizedContainerService.HintSize>556,596</sap:VirtualizedContainerService.HintSize>
  <mva:VisualBasic.Settings>Assembly references and imported namespaces for internal implementation</mva:VisualBasic.Settings>
  <Sequence DisplayName="Default Template" sap:VirtualizedContainerService.HintSize="516,556">
    <sap:WorkflowViewStateService.ViewState>
      <scg:Dictionary x:TypeArguments="x:String, x:Object">
        <x:Boolean x:Key="IsExpanded">True</x:Boolean>
      </scg:Dictionary>
    </sap:WorkflowViewStateService.ViewState>
    <a:ClearResults sap:VirtualizedContainerService.HintSize="494,22" />
    <a:ReadLayoutAttribute AttributesToRead="android:id" sap:VirtualizedContainerService.HintSize="494,22" Result="[ControlIdList]" XPath="//EditText" />
    <ForEach x:TypeArguments="scg:KeyValuePair(x:String, scg:IList(x:String))" sap:VirtualizedContainerService.HintSize="494,308" Values="[ControlIdList]">
      <sap:WorkflowViewStateService.ViewState>
        <scg:Dictionary x:TypeArguments="x:String, x:Object">
          <x:Boolean x:Key="IsExpanded">True</x:Boolean>
          <x:Boolean x:Key="IsPinned">False</x:Boolean>
        </scg:Dictionary>
      </sap:WorkflowViewStateService.ViewState>
      <ActivityAction x:TypeArguments="scg:KeyValuePair(x:String, scg:IList(x:String))">
        <ActivityAction.Argument>
          <DelegateInArgument x:TypeArguments="scg:KeyValuePair(x:String, scg:IList(x:String))" Name="item" />
        </ActivityAction.Argument>
        <If Condition="[item.Value.Count&gt;=5]" sap:VirtualizedContainerService.HintSize="464,203">
          <If.Then>
            <a:WriteResponse sap:VirtualizedContainerService.HintSize="200,22" IsPassed="False" ResponseText="[item.Key + &quot; contains more than 5 text boxes&quot;]" />
          </If.Then>
          <If.Else>
            <a:WriteResponse sap:VirtualizedContainerService.HintSize="200,22" IsPassed="True" ResponseText="[item.Key + &quot; contains less than 5 text boxes&quot;]" />
          </If.Else>
        </If>
      </ActivityAction>
    </ForEach>
  </Sequence>
</Activity>
```
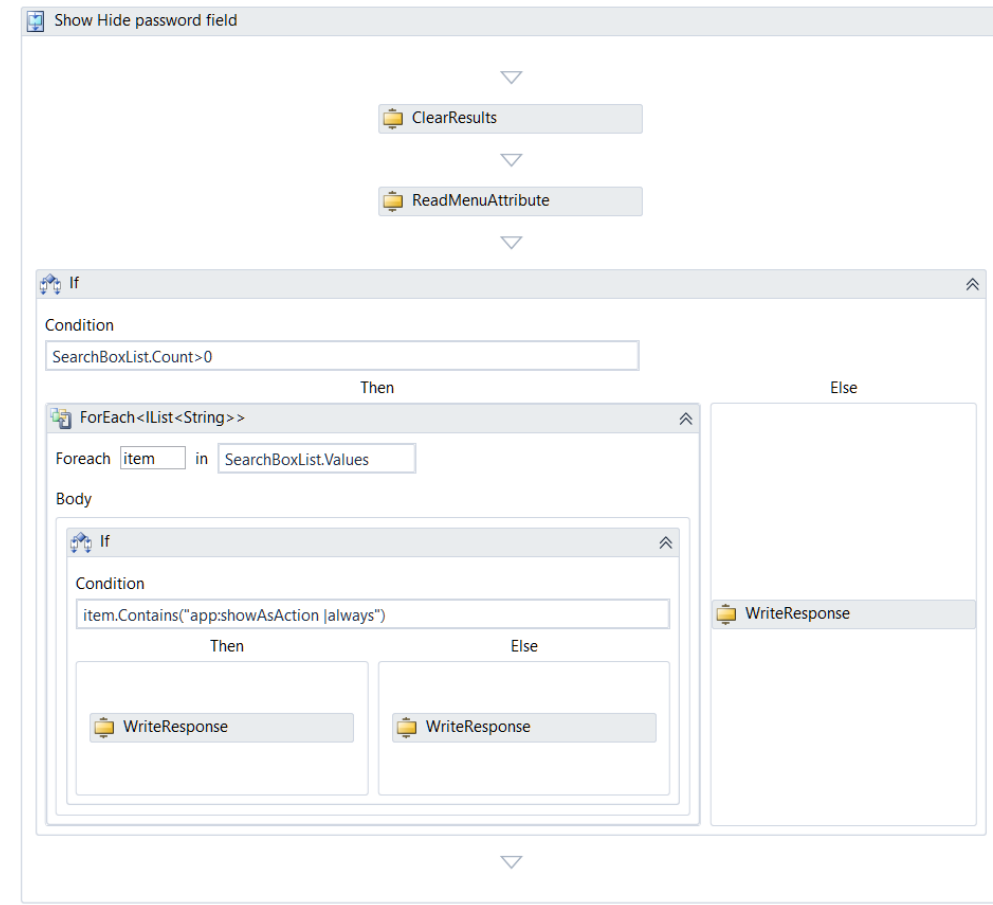
4. **If the search tool is inside the navigation menu, place it at the very top of that menu.** Most people are used to search being in a prominent place such as the top of the screen; if they don't find it quickly, they may assume it does not exist on that site or in that app.

```
Show Hide password field
        ▽
      ClearResults
        ▽
    ReadMenuAttribute
        ▽

If                                                              ⌃
Condition
SearchBoxList.Count>0

        Then                              Else
ForEach<IList<String>>                ⌃
Foreach  item   in   SearchBoxList.Values

Body

    If                                ⌃
    Condition
    item.Contains("app:showAsAction |always")

        Then              Else                    WriteResponse

      WriteResponse      WriteResponse


        ▽
```

```xml
<Activity mc:Ignorable="sads sap" x:Class="Activity Builder"
 xmlns="http://schemas.microsoft.com/netfx/2009/xaml/activities"
 xmlns:a="clr-namespace:ActivityLibrary;assembly=ActivityLibrary"
 xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
 xmlns:mva="clr-
namespace:Microsoft.VisualBasic.Activities;assembly=System.Activities"
 xmlns:s="clr-namespace:System;assembly=mscorlib"
 xmlns:s1="clr-namespace:System;assembly=System"
 xmlns:s2="clr-namespace:System;assembly=System.Core"
 xmlns:s3="clr-namespace:System;assembly=System.ServiceModel"
 xmlns:sa="clr-namespace:System.Activities;assembly=System.Activities"

xmlns:sads="http://schemas.microsoft.com/netfx/2010/xaml/activities/debugger"

xmlns:sap="http://schemas.microsoft.com/netfx/2009/xaml/activities/presentati
on"
 xmlns:scg="clr-namespace:System.Collections.Generic;assembly=mscorlib"
 xmlns:scg1="clr-namespace:System.Collections.Generic;assembly=System.Core"
 xmlns:scg2="clr-namespace:System.Collections.Generic;assembly=System"
 xmlns:scg3="clr-
namespace:System.Collections.Generic;assembly=System.ServiceModel"
 xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml">
  <x:Members>
```

```xml
    <x:Property Name="PasswordTextBoxList2"
Type="OutArgument(scg:Dictionary(x:String, scg:IList(x:String)))" />
    <x:Property Name="SearchBoxList"
Type="OutArgument(scg:Dictionary(x:String, scg:IList(x:String)))" />
  </x:Members>

<sap:VirtualizedContainerService.HintSize>781,699</sap:VirtualizedContainerService.HintSize>
  <mva:VisualBasic.Settings>Assembly references and imported namespaces for
internal implementation</mva:VisualBasic.Settings>
  <Sequence DisplayName="Show Hide password field"
sap:VirtualizedContainerService.HintSize="741,659">
    <sap:WorkflowViewStateService.ViewState>
      <scg:Dictionary x:TypeArguments="x:String, x:Object">
        <x:Boolean x:Key="IsExpanded">True</x:Boolean>
      </scg:Dictionary>
    </sap:WorkflowViewStateService.ViewState>
    <a:ClearResults sap:VirtualizedContainerService.HintSize="719,22" />
    <a:ReadMenuAttribute AttributesToRead="app:showAsAction"
sap:VirtualizedContainerService.HintSize="719,22" Result="[SearchBoxList]"
XPath="//item[@app:actionViewClass='android.support.v7.widget.SearchView']"
/>
    <If Condition="[SearchBoxList.Count&gt;0]"
sap:VirtualizedContainerService.HintSize="719,411">
      <sap:WorkflowViewStateService.ViewState>
        <scg:Dictionary x:TypeArguments="x:String, x:Object">
          <x:Boolean x:Key="IsExpanded">True</x:Boolean>
          <x:Boolean x:Key="IsPinned">False</x:Boolean>
        </scg:Dictionary>
      </sap:WorkflowViewStateService.ViewState>
      <If.Then>
        <ForEach x:TypeArguments="scg:IList(x:String)"
sap:VirtualizedContainerService.HintSize="494,308"
Values="[SearchBoxList.Values]">
          <ActivityAction x:TypeArguments="scg:IList(x:String)">
            <ActivityAction.Argument>
              <DelegateInArgument x:TypeArguments="scg:IList(x:String)"
Name="item" />
            </ActivityAction.Argument>
            <If Condition="[item.Contains(&quot;app:showAsAction
|always&quot;)]" sap:VirtualizedContainerService.HintSize="464,203">
              <If.Then>
                <a:WriteResponse
sap:VirtualizedContainerService.HintSize="200,22" IsPassed="True"
ResponseText="Search box is present on top of the menu" />
              </If.Then>
              <If.Else>
                <a:WriteResponse
sap:VirtualizedContainerService.HintSize="200,22" IsPassed="False"
ResponseText="Search Box is not present on top of the menu" />
              </If.Else>
            </If>
          </ActivityAction>
        </ForEach>
      </If.Then>
      <If.Else>
```

```xml
        <a:WriteResponse sap:VirtualizedContainerService.HintSize="200,22"
IsPassed="True" ResponseText="Not Applicable" />
      </If.Else>
    </If>
  </Sequence>
</Activity>
```