

ServiceNow Application Developer

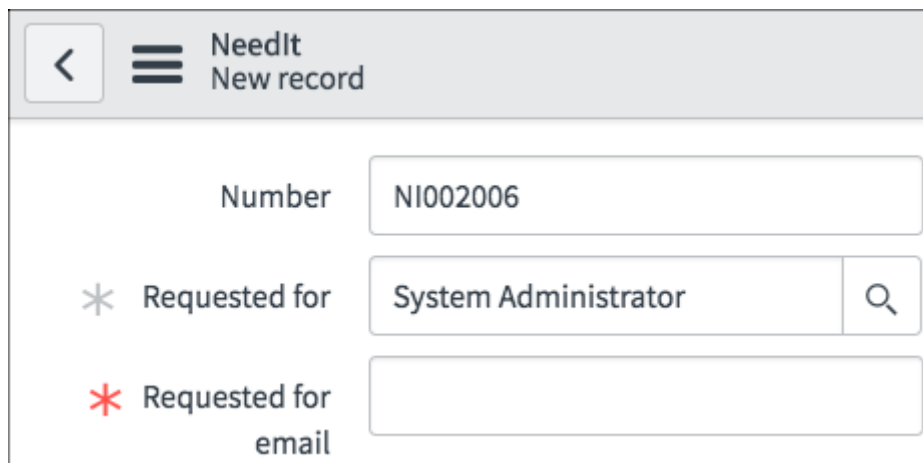
Server-side Scripting > Exercise: On Demand Script Include

In this exercise, you will write an on demand Script Include to validate email address syntax. The Script Include can be used by any scoped application and not just the *NeedIt* application.

Preparation

Add a string field to the *NeedIt* table to store an email address.

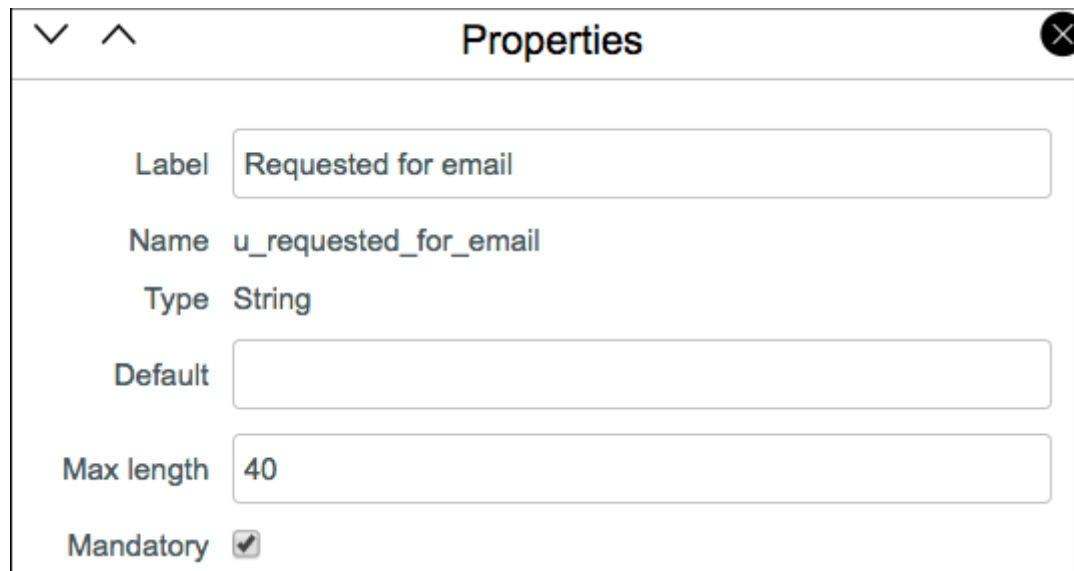
1. In Studio, use the Application Explorer to open **Forms & UI > Forms > NeedIt [Default view]**.
2. In the Field Navigator, switch to the **Field Types** tab.
3. Locate the **String** data type in the *Field Types* tab. Drag the *String* data type to the *NeedIt* form. Drop the *String* data type beneath the *Requested for* field.



The screenshot shows the 'NeedIt' form in ServiceNow Studio. The header bar includes a back arrow, a menu icon, and the text 'NeedIt New record'. The form contains three fields: 'Number' with the value 'NI002006', 'Requested for' with the value 'System Administrator' and a search icon, and 'Requested for email' which is currently empty. The 'Requested for email' field is marked with a red asterisk, indicating it is a required field.

4. Hover over the new field and click the **Edit Properties** button () to configure the new field.

5. Configure the field:



The image shows a 'Properties' dialog box with a title bar containing a collapse icon (v), an expand icon (^), the title 'Properties', and a close button (X). The dialog contains the following fields:

- Label**: A text input field containing 'Requested for email'.
- Name**: A text input field containing 'u_requested_for_email'.
- Type**: A dropdown menu showing 'String'.
- Default**: An empty text input field.
- Max length**: A text input field containing '40'.
- Mandatory**: A checkbox that is checked.

6. Close the *Properties* dialog by clicking the **Close** button ().

7. Click the **Save** button in the Form Design header to add the field to the *NeedIt* table in the database.

Write the On Demand Script Include

1. Create a Script Include.

- In Studio, click the **Create Application File** link.
- In the *Filter...* field enter the text **Script** OR select **Server Development** from the categories in the left hand pane.
- Select **Script Include** in the middle pane as the file type, then click the **Create** button.

2. Configure the Script Include:

Name: **validateEmailAddress**

API Name: **(this field value is automatically populated)**

Application: **(this field value is automatically populated)**

Accessible from: **All application scopes**

Active: **Selected (checked)**

Description: **On demand Script Include to validate email address syntax using regular expressions.**

3. Delete the template from the *Script* field. Copy the script and paste it into the *Script* field.

```
function validateEmailAddress(emailStr){
    // Use JavaScript coercion to guarantee emailStr is a string
    emailStr = emailStr + '';
    // Compare emailStr against the allowed syntax as specified in the
    regular expression
    // If emailStr has allowed syntax, return true, else return false
    if(emailStr.match(/^((([^<>()\\[\]\\.,:;\\s@"])+(\\".^[<>()\\
[\\]\\.\\.,:;\\s@"]+)*|(".*"))@((\\[[0-9]{1,3}\\.[0-9]{1,3}\\.[0-9]{1,3}\\.[0-9]
{1,3}]))|((([a-zA-Z\\-0-9]+\\.)+[a-zA-Z]{2,}))$\\/)){
        return true;
    }
    else {
        return false;
    }
}
```

4. Click the **Submit** button.

Use the Script Include in a Business Rule

1. Create a Business Rule.
 - a. In Studio, click the **Create Application File** link.
 - b. In the *Filter...* field enter the text **Business** OR select **Server Development** from the categories in the left hand pane.
 - c. Select **Business Rule** in the middle pane as the file type then click the **Create** button.

2. Configure the Business Rule:

Name: **Email Address Syntax Validate**

Table: **NeedIt [x_<your_company_code>_needit_needit]**

Active: **Selected (checked)**

Advanced: **Selected (checked)**

3. Switch to the **When to run** section and continue configuring the Business Rule:

When: **Before**

Insert: **Selected (checked)**

Update: **Selected (checked)**

4. Click the **Submit** button.

5. Switch to the **Advanced** section.

6. Copy this script and paste it into the *executeRule* function in the *Script* field. Do not overwrite the template; paste the script after the *Add your code here* comment.

```
// Pass the Requested for email to the Script Include. Store the return
// value from the Script Include in the isEmail variable
var isEmail = validateEmailAddress(current.u_requested_for_email);
// If isEmail is false (email address syntax is not valid) do not save
// the record. Write an error message to the screen.
if(isEmail == false){
    gs.addErrorMessage(current.u_requested_for_email + " is not a valid
email address. You must provide a valid email address.");
    current.setAbortAction(true);
}
```

7. Click the **Update** button.




► **QUESTION:** You could write the validation logic in the Business Rule instead of using a Script Include. Why use a Script Include?

Test the Business Rule and Script Include

1. Switch to the main ServiceNow browser window and use the browser's refresh button to reload ServiceNow.

► **QUESTION:** Why do you have to reload the main ServiceNow browser window?

2. Create a *NeedIt* record or open an existing *NeedIt* record for editing.
3. Enter an invalid email address, such as **hello**, in the *Requested for email* field.

4. Click the **Additional actions** menu () and select the **Save** menu item. Do not click the *Submit* or *Update* buttons because that will take you away from the form.
5. Examine the error message.
6. Enter a different invalid email address, such as an address with no .com at the end, in the *Requested for email* field.
7. Click the **Additional actions** menu () and select the **Save** menu item.
8. Enter an email address with *valid syntax* in the *Requested for email* field.
9. Click the **Additional actions** menu () and select the **Save** menu item.
There should be no error message.