Process flow Developer Guide

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Steps to develop Process Flow

1. Create a Class Library Project

- Use proper naming conventions for the project name, assembly name, and class name.

2. Add References

- Add the necessary reference files to the project. These reference files are in the Smartclient Aptify folder.

Name	Date modified	Type	Size
AptifyApplication.dll	03-08-2021 10:11	Application exten...	442 KB
AptifyAttributeManagement.dll	03-08-2021 10:10	Application exten...	47 KB
AptifyExceptionManagement.dll	03-08-2021 10:10	Application exten...	113 KB
AptifyGenericDataServices.dll	03-08-2021 10:10	Application exten...	33 KB
AptifyGenericEntity.dll	03-08-2021 10:11	Application exten...	403 KB
AptifyGenericEntityBase.dll	03-08-2021 10:11	Application exten...	108 KB
AptifyProcessFlowEngine.dll	03-08-2021 10:11	Application exten...	114 KB
AptifyUtility.dll	03-08-2021 10:10	Application exten...	145 KB
IAptifyDataServices.dll	03-08-2021 10:10	Application exten...	35 KB

3. Implement the IProcessComponent Interface

- This interface includes two methods: Config() and Run().
- Config() Method: This method initializes the oDataAction and oApplication objects, which help establish a database connection. It also allows the use of various properties and methods for CRUD operations.
- Run() Method: Developers can write the code or logic inside this method.

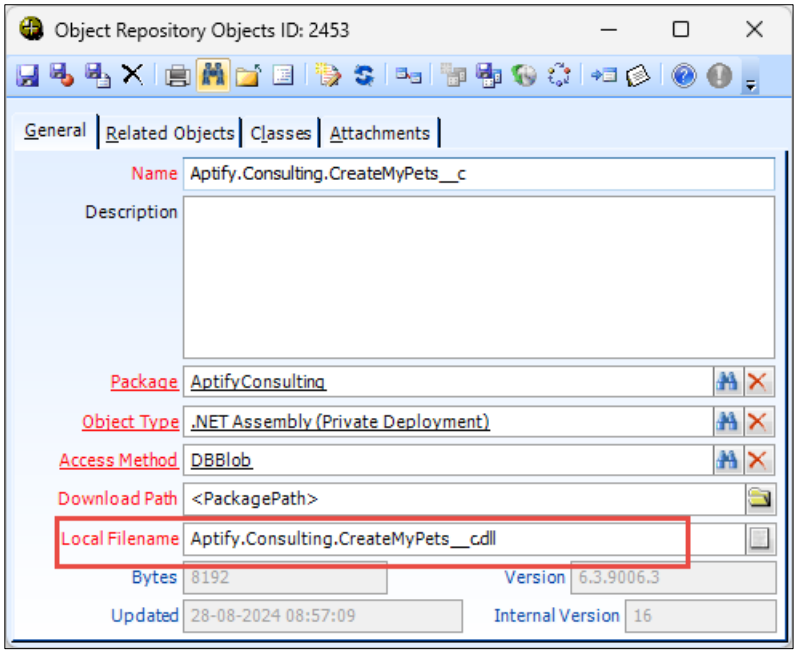
```
CreateMyPets__c.cs
Aptify.Consulting.CreateMyPets__c | Aptify.Consulting.PersonMembershipCreate__c.Create | Run()
11  using Aptify.Framework.ExceptionManagement;
12  using System.Data;
13  using Aptify.Framework.BusinessLogic.GenericEntity;
14
15  namespace Aptify.Consulting.PersonMembershipCreate__c
16  {
        0 references
17      public class CreateMyPets__c :IProcessComponent
18      {
19          "Declaration"
25
26          #region Properties
            7 references
27          public AptifyProperties Properties...
            0 references
38          public void Config(AptifyApplication ApplicationObject)
39          {
40              try
41              {
42                  oApplication = ApplicationObject;
43                  oDataAction = new DataAction(oApplication.UserCredentials);
44              }
45              catch (Exception ex)
46              {
47                  ExceptionManager.Publish(ex);
48              }
49          }
            0 references
50          protected virtual AptifyApplication ApplicationObject => oApplication;
51
            1 reference
52          protected virtual Int32 ID...
            2 references
60          protected virtual string Name...
            1 reference
68          protected virtual int PersonID ...
            1 reference
76          protected virtual int SizeID ...
            1 reference
84          protected virtual int BreedID ...
            1 reference
92          protected virtual int TypeID ...
100
101         #endregion
102
            0 references
103         public string Run()
104         {
105             try...
161         }
162
163
100 %   No issues found   Ln: 104   Ch: 9   SPC   CRLF
```

4. Build the Class Library Project

- Build the project to generate the DLL file.

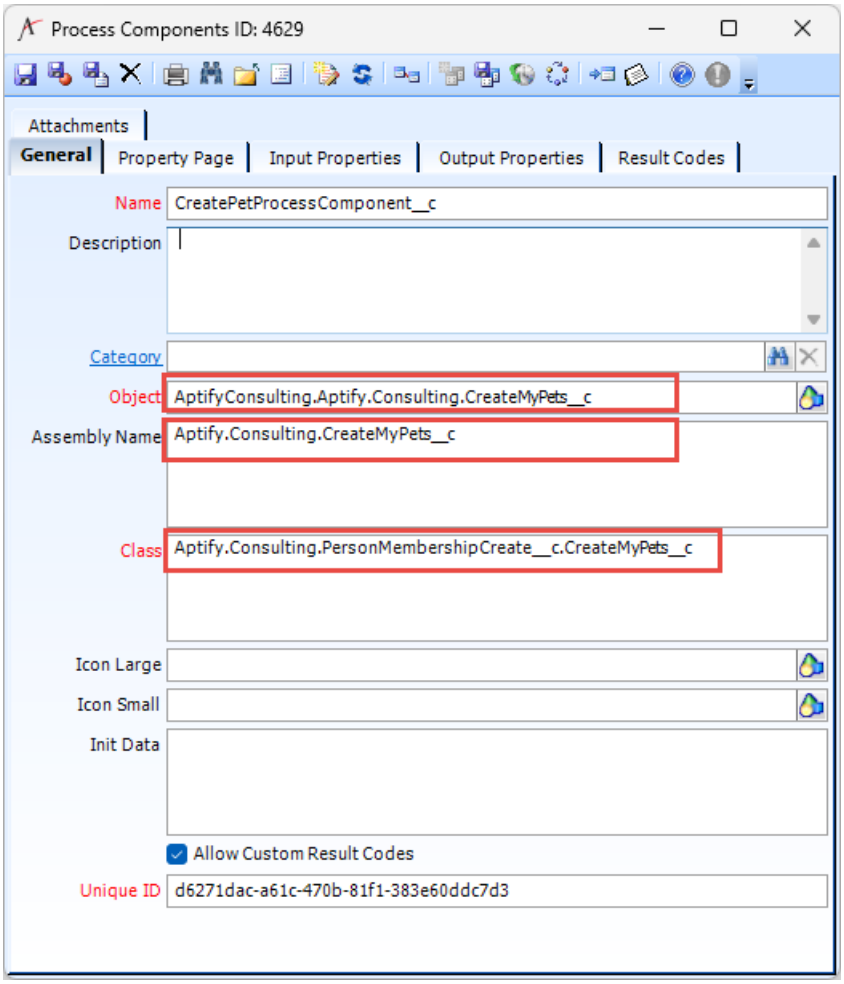
5. Add the DLL File

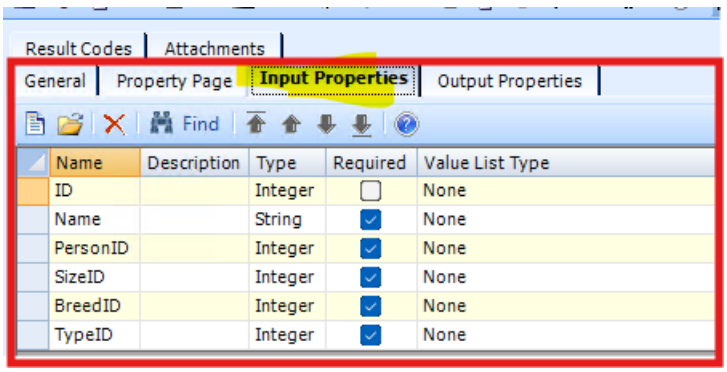
- Add the generated DLL file into Object Repository Object records.

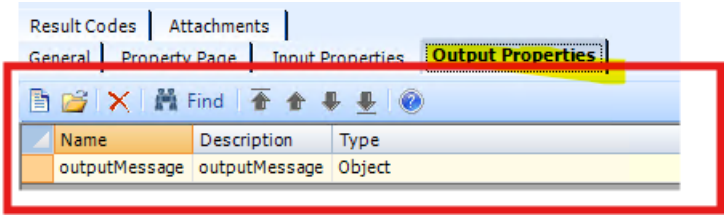


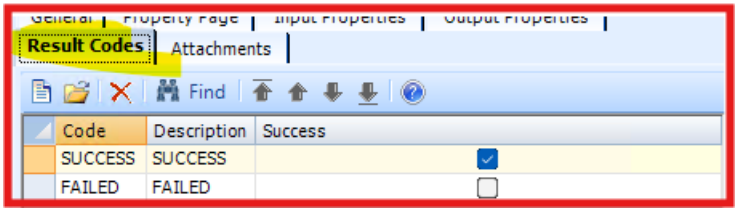
6. Create Process component Records

- Use the Object Repository Object name, assembly name, and class name to create Process component records. Copy these records into the Process component.



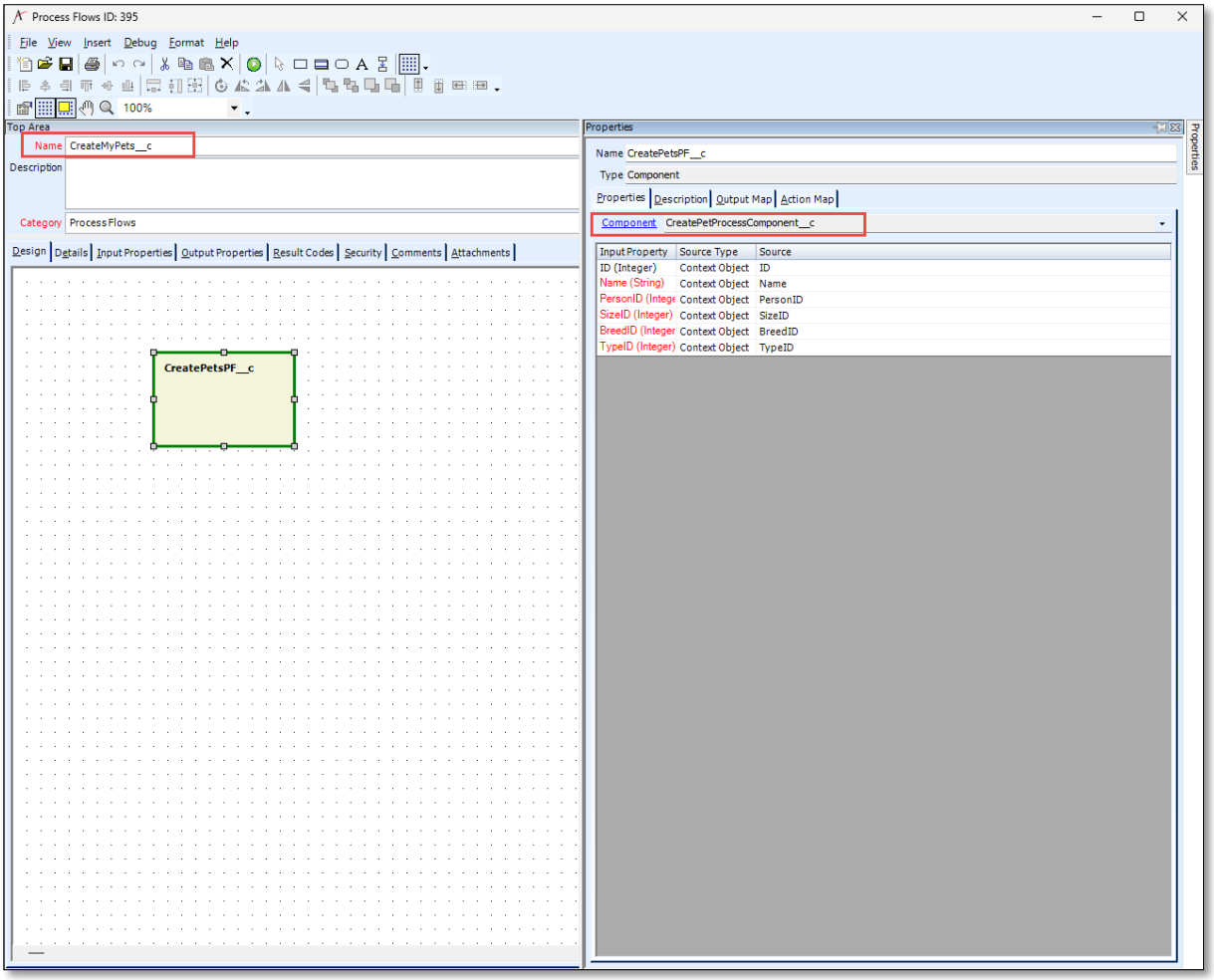






7. Create Process Flow Records

- Create Process flow records and attach the previously created Process component records to the Process flow.



8. Process component Code:

```
/*****************************************************************************
*****************************************
********  Developer                    Date Created/Modified
Comment
******* Lalit Bhangale                     09/14/2024 (Created)
Create pet record

*****************************************************************************
****************************************/

using System;
using Aptify.Framework.Application;
using Aptify.Framework.BusinessLogic.ProcessPipeline;
using Aptify.Framework.DataServices;
using Aptify.Framework.ExceptionManagement;
using System.Data;
using Aptify.Framework.BusinessLogic.GenericEntity;


namespace Aptify.Consulting.CreatePetRecords__c
{
```

```
    public class CreatePet : IProcessComponent
    {
        #region Global variables
        private AptifyApplication m_oApplication;
        private AptifyProperties m_oProperties;
        private DataAction m_oDataAction;
        string _message = "Pet Record Created!";
        #endregion
        public AptifyProperties Properties
        {
            get
            {
                if (m_oProperties == null)
                {
                    m_oProperties = new AptifyProperties();
                }
                return m_oProperties;
            }
        }
        //This method used to initializes the oDataAction and oApplication
objects
        //Which help establish a database connection.
        public void Config(AptifyApplication ApplicationObject)
        {
            try
            {
                m_oApplication = ApplicationObject;
                m_oDataAction = new
DataAction(m_oApplication.UserCredentials);
            }
            catch (Exception ex)
            {
                ExceptionManager.Publish(ex);
            }
        }
        #region Read Process flow inputs
        protected virtual AptifyApplication ApplicationObject =>
m_oApplication;

        protected virtual long PetId
        {
            get
            {
                var PetId = Properties["ID"] ?? throw new
ArgumentNullException("PetId");
                return Convert.ToInt64(PetId);
            }
        }
        protected virtual string Name
        {
            get
            {
                var Name = Properties["Name"] ?? throw new
ArgumentNullException("Name");
                return Convert.ToString(Name);
            }
        }
        protected virtual long SizeID
        {
            get
            {
                var SizeID = Properties["SizeID"] ?? throw new
ArgumentNullException("SizeID");
```

```
                return Convert.ToInt64(SizeID);
            }
        }
        protected virtual long BreedID
        {
            get
            {
                var BreedID = Properties["BreedID"] ?? throw new
ArgumentNullException("BreedID");
                return Convert.ToInt64(BreedID);
            }
        }
        protected virtual long TypeID
        {
            get
            {
                var TypeID = Properties["TypeID"] ?? throw new
ArgumentNullException("TypeID");
                return Convert.ToInt64(TypeID);
            }
        }

        protected virtual long OwnerID
        {
            get
            {
                var OwnerID = Properties["PersonID"] ?? throw new
ArgumentNullException("OwnerID");
                return Convert.ToInt64(OwnerID);
            }
        }

        #endregion
        //Developers can write the business logic inside this method.
        public string Run()
        {
            try
            {

                string errString = string.Empty;
                AptifyGenericEntityBase oPetGE = null;
                oPetGE = m_oApplication.GetEntityObject("Pets__c", PetId);
                if (oPetGE != null) {
                    oPetGE.SetValue("Name", Name);
                    oPetGE.SetValue("OwnerID", OwnerID);
                    oPetGE.SetValue("AnimalSizeID", SizeID);
                    oPetGE.SetValue("PetBreedID", BreedID);
                    oPetGE.SetValue("AnimalTypeID", TypeID);
                }


                if (!oPetGE.Save(ref errString))
                {
                    if (errString != string.Empty)
                    {
                        ExceptionManager.Publish(new Exception(errString));
                    }
                    else
                    {
                        ExceptionManager.Publish(new Exception("ERROR While
creating pet record" + oPetGE.LastUserError));
                    }
                }
```

```
                using (var tblStatus = new DataTable())
                {
                    tblStatus.Columns.Add("PetID", typeof(Int32));
                    tblStatus.Columns.Add("Name", typeof(string));
                    tblStatus.Columns.Add("Size", typeof(string));
                    tblStatus.Columns.Add("Breed", typeof(string));
                    tblStatus.Columns.Add("Type", typeof(string));
                    tblStatus.Columns.Add("Message", typeof(string));


                    DataRow drStatus = tblStatus.NewRow();
                    drStatus["PetID"] = oPetGE.RecordID;
                    drStatus["Name"] = Name;
                    drStatus["Size"] =
Convert.ToString(oPetGE.GetValue("AnimalSize"));
                    drStatus["Breed"] =
Convert.ToString(oPetGE.GetValue("PetBreed"));
                    drStatus["Type"] =
Convert.ToString(oPetGE.GetValue("AnimalType"));
                    drStatus["Message"] = _message;
                    tblStatus.Rows.Add(drStatus.ItemArray);
                    Properties.SetProperty("outputMessage", tblStatus);
                }
                return "SUCCESS";
            }

            catch (Exception ex)
            {
                ExceptionManager.Publish(ex);
                return "FAILED";
            }
        }
    }
}
```