现代操作系统应用开发实验报告

学号： 15331418 　　　　　　**班级** ： 晚上班

姓名： 郑柏川 　　**实验名称：** Background Execution& Application

Lifecycle

一 . 参考资料

百度相关资料

Windows.Storage.AccessCache.StorageApplicationPermissions.FutureAccessList.GetFile
Async

二 . 实验步骤

关于 mainpage 的数据保存：

```
protected override void OnNavigatedFrom(NavigationEventArgs e)
{
    ApplicationDataCompositeValue composite = new ApplicationDataCompositeValue();
    composite["checkbox1"] = (bool)checkbox1.IsChecked;
    composite["checkbox2"] = (bool)checkbox2.IsChecked;
    ApplicationData.Current.LocalSettings.Values["MainPageInfo"] = composite;
}
```

关于 mainpage 的数据恢复：

```
protected override void OnNavigatedTo(NavigationEventArgs e)
{
    // not go back
    SystemNavigationManager.GetForCurrentView().AppViewBackButtonVisibility = AppViewBackButtonVisibility.Collapsed;

    // data recovering
    if (ApplicationData.Current.LocalSettings.Values.ContainsKey("MainPageInfo"))
    {
        var composite = ApplicationData.Current.LocalSettings.Values["MainPageInfo"] as ApplicationDataCompositeValue;

        bool c1, c2;
        c1 = (bool)composite["checkbox1"];
        c2 = (bool)composite["checkbox2"];
        checkbox1.IsChecked = c1;
        checkbox2.IsChecked = c2;
        line1.Visibility = c1 ? Visibility.Visible : Visibility.Collapsed;
        line2.Visibility = c2 ? Visibility.Visible : Visibility.Collapsed;
        // finish data recovering
        ApplicationData.Current.LocalSettings.Values.Remove("MainPageInfo");
    }
}
```

Newpage 的数据保存：

```
protected override void OnNavigatedFrom(NavigationEventArgs e)
{
    ApplicationDataCompositeValue composite = new ApplicationDataCompositeValue();

    composite["Title"] = title.Text;
    composite["Detail"] = details.Text;
    composite["DueDate"] = datepicker.Date;

    if (ImageData != null)
    {
        // 讲被选择的图片文件保存到FutureAccessList，并且保存token到composite中
        string token = Windows.Storage.AccessCache.StorageApplicationPermissions.FutureAccessList.Add(ImageDa
        composite["imagedata"] = token;
    }
    else
    {
        composite["ImageData"] = "no";
    }

    ApplicationData.Current.LocalSettings.Values["NewPageInfo"] = composite;
}
```
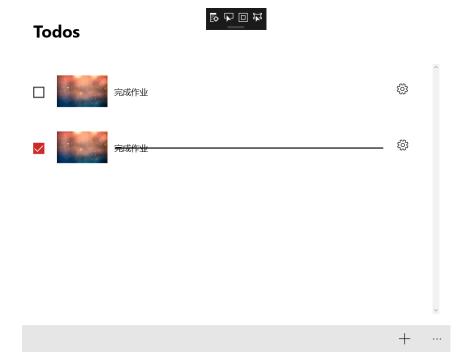
Newpage 的数据恢复：

```
protected override async void OnNavigatedTo(NavigationEventArgs e)
{
    SystemNavigationManager.GetForCurrentView().AppViewBackButtonVisibility = AppViewBackButtonVisibility.Vi

    // 恢复数据
    if (ApplicationData.Current.LocalSettings.Values.ContainsKey("NewPageInfo"))
    {
        var composite = ApplicationData.Current.LocalSettings.Values["NewPageInfo"] as ApplicationDataCompos

        title.Text = (string)composite["Title"];
        details.Text = (string)composite["Detail"];
        datepicker.Date = (DateTimeOffset)composite["DueDate"];

        // 获取token
        string token = (string)composite["ImageData"];
        if (token != "no")
        {

            ImageData = await Windows.Storage.AccessCache.StorageApplicationPermissions.FutureAccessList.Get
            Windows.Storage.AccessCache.StorageApplicationPermissions.FutureAccessList.Remove(token);

            var fileStream = await ImageData.OpenReadAsync();
            var bitmapImage = new BitmapImage();
            await bitmapImage.SetSourceAsync(fileStream);

            img.Source = bitmapImage;
        }
    }
```

三．实验结果截图

Edit Todo Item

select

Title

12

Details

12

Due Date

| 2017年 | 3月 | 22日 |

Todos

四．实验过程遇到的问题

　　图片保存问题，最后查找 api 解决

五．思考与总结

　　本次实验较简单，只要数据的保存恢复即可