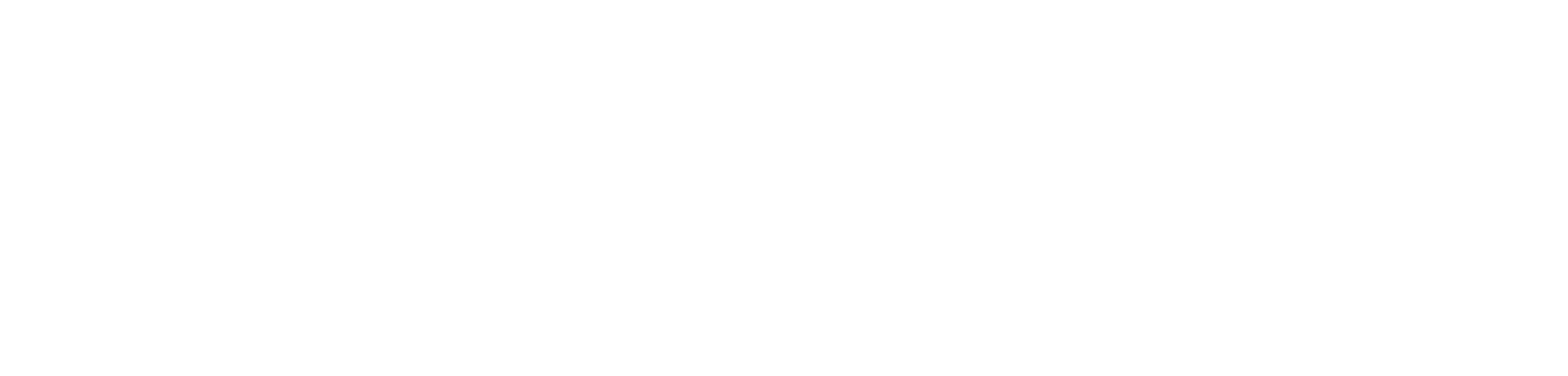
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bitcoin price tracker

Solution Design Document

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# INTRODUCTION

## Document overview

The Solution Design Document describes the design and key features of an automated business process. In an early stage of automation, it documents the high-level solution design. In this context, it is not necessary for all chapters to be updated. Subsequently, all chapters must be filled with detailed design information once the automated process moves into the testing phase.

## Objectives

The finalized document shall:

* Provide a high-level overview of the automated business process using UiPath technology.
* Describe the objects necessary for processing each business case.
* List and describe the technical requirements for each object used.
* List inputs and outputs of each part of the process.
* Outline the unique points and peculiarities of the solution.
* Mention potential risks regarding source data and results.

For every change, the automated process undergoes, this document must be updated too.

# Definitions & abbreviations

Add here any stakeholders that are involved in the process:

|  |  |  |
| --- | --- | --- |
| # | Term/Abbreviation | Definition/Description |
| 1 | Element | A robot consists of several building blocks. These can be states, transition lanes or functions. A member of this group is called an Element. |
| 2 | Orchestrator | UiPath Orchestrator, part of the UiPath RPA suite, is used to manage releases, schedules, queues, assets, licensing, users, bots – a central management hub. |
| 3 | Package | The output of compiling a project, which is published to UiPath Orchestrator. |

# Solution Overview

## List of packages

The process has 1 part:

|  |  |  |
| --- | --- | --- |
| # | Package Name | Description |
| 1 | BitcoinPriceTracker | Represents the whole solution |
|  |  |  |
|  |  |  |

## Solution diagram of the process

## Solution description of the process

|  |  |
| --- | --- |
| State | Description |
| 1 | Configuration settings initialization. InitSettings activity is called and all the sites URL’s, paths and other settings are being read from the Confix.xlsx file. |
| 2 | Read the old prices in euro from prices.xlsx files and stores them in a variable. That variable is going to be used when prices.xlsx is repopulated at the end of the process. |
| 3  4 | Find the Bitcoin price from each website. Each site will be opened in a different google chrome instance (in order for the process to be less error prone) in this order: Binance, KuCoin, Coinbase, CoinMarketCap and CoinGecko. The prices in euro will be read and stored in separate variables. In case of errors, the value will be “undefined”.  Convert the prices from USD to EURO using real-time BNR and populate the Data Table. In case of error when a price was read, the value will be “undefined”. |
| 5 | Populate the prices.xlsx file with the new values. |
| 6 | Send an email containing prices.xlsx file to the email addresses that are present in the emails.txt file. The emails mush be delimited by “;”. |

# Process exceptions

## Business exceptions

|  |  |  |  |
| --- | --- | --- | --- |
| Step no. | Exception name | Workflow | Package |
|  | BrowserException | \*Price | BitcoinPriceTracker |
|  |  |  |  |
|  |  |  |  |

## Application exceptions

|  |  |  |  |
| --- | --- | --- | --- |
| Step no. | Exception name | Workflow | Package |
|  | GeneralException | Main | BitcoinPriceTracker |
|  |  |  |  |
|  |  |  |  |

# Data storage

## Data sources

|  |  |  |
| --- | --- | --- |
| Resource | Location | Description |
| Config.xlsx | Data | Configuration file having URLs, messages and others |
| emails.txt | Data | File containg all emails where the final Excel should be sent |

## Output data

|  |  |  |
| --- | --- | --- |
| Resource | Location | Description |
| prices.xlxs | Data | The final Excel having Bitcoin price from all websites |
|  |  |  |