# 2. Survey of Existing Data Sources

## This Document is Generated completely Automatically using a python program and ChatGPT API. Because we did not have access to gpt-4 API at the time, we used gpt-3.5 model in our API calls.

## The lines in green are the prompts sent to ChatGPT. Lines in purple are ChatGPT’s answers to prompts. The pros and cons section is also generated with ChatGPT but to separate it from the prompts they are colored in Black.

## The text in italic and black in the conclusion section is added after the document has been generated.

## 2.1. The Space of Parts of Work

### 2.1.1. Organisations

We are seeking to identify the companies that provide contract for construction of domestic buildings. Optionally focused on a particular region such as NI or the UK.

You are an expert data analyst who excels at finding public data sources that are helpful for analysis.You are helping a company that provides contract for construction of domestic buildings to the UK government. we want to compile a list of organizations, each possessing distinct characteristics, which can serve as a foundation for subsequent exploration. Every organization holds the potential to initiate comprehensive investigations. Your task is to pinpoint the companies that do contract for construction of domestic buildings. Optionally, this can extend to a specific region like the UK government or similar geographical areas. Provide most up to date information and give usable links to obtain useful data. you can search internet multiple times. if you search internet provide a search prompt to help your task.

To find organizations that contract for the construction of domestic buildings in the UK government or similar geographical areas, you can utilize various public data sources. Here are some steps and search prompts to help you in your task:  
  
1. Government Contracts Search:  
 - Visit the UK government's official website.  
 - Use the search prompt "construction contracts" or "domestic building contracts" to search for relevant information.  
 - Look for sections or pages related to government contracts, tenders, or procurement.  
 - Explore the available data and filter for organizations involved in construction projects.  
  
2. Public Procurement Databases:  
 - Access public procurement databases such as Contracts Finder (https://www.contractsfinder.service.gov.uk/) or TED (https://ted.europa.eu/).  
 - Use the search prompt "construction contracts" or "domestic building contracts" to search for relevant tenders.  
 - Filter the results based on location (e.g., UK) and other criteria to narrow down the list of organizations.  
  
3. Construction Industry Associations:  
 - Explore websites of construction industry associations in the UK, such as the Construction Industry Council (https://www.cic.org.uk/) or the Federation of Master Builders (https://www.fmb.org.uk/).  
 - Look for directories or member lists that include construction companies involved in domestic building projects.  
 - Check if these associations provide any data or reports on construction contracts.  
  
4. Local Government Websites:  
 - Visit the websites of local government authorities in the UK, such as city councils or county councils.  
 - Use the search prompt "construction contracts" or "domestic building contracts" along with the name of the specific region you are interested in.  
 - Look for sections related to procurement, tenders, or contracts to find information on organizations involved in construction projects.  
  
5. Construction Industry Reports:  
 - Search for industry reports or market research related to the construction sector in the UK.  
 - Use search prompts like "UK construction industry report" or "domestic building market analysis."  
 - Look for reports that provide insights into the major players or contractors in the industry.  
  
Remember to verify the credibility and reliability of the sources you find. The provided links and search prompts are general suggestions, and you may need to adapt them based on your specific requirements and the availability of data.

chatgpt answer with google search:

I found some useful information and resources related to companies that do contract for construction of domestic buildings in the UK government:  
  
1. [Contracts Finder - GOV.UK](https://www.gov.uk/contracts-finder): This website allows you to search for contract opportunities in different sectors, including construction. You can find upcoming opportunities and details of previous contracts.  
  
2. [Agreement with major developers to fund building safety repairs - GOV.UK](https://www.gov.uk/government/news/agreement-with-major-developers-to-fund-building-safety-repairs): This article discusses an agreement with major developers in the UK who have pledged to fix building safety issues.  
  
3. [Building Contract for a Home Owner/Occupier who has not appointed a consultant to oversee the work (HO/B) 2021 - JCT](https://www.jctltd.co.uk/product/building-contract-for-a-home-owner-occupier): This is a specific building contract for homeowners or occupiers who have not appointed a consultant to administer the contract. It provides a direct relationship between the customer and the contractor.  
  
4. [Offsite Construction Solutions - CCS - Crown Commercial Service](https://www.crowncommercial.gov.uk/agreements/RM6184): This service allows suppliers to manufacture construction solutions off-site and then transport them to the site for installation, reducing disruption and lead time.  
  
You can explore these resources for more information and data on companies involved in the construction of domestic buildings in the UK government.

chatgpt answer with bing search:

I found some information related to companies that do contracts for the construction of domestic buildings in the UK government. Here are a few resources you can explore:  
  
1. [Find a Tender](https://www.find-tender.service.gov.uk/) - This service allows you to find and apply for high-value contracts in the UK government. You can search for construction tenders specifically.  
  
2. [Supply2Gov Tenders](https://www.supply2govtenders.co.uk/construction-tenders) - This website provides information on construction tenders in the UK and ROI. It can be a great resource for finding construction contracts.  
  
3. [RIBA Domestic Building Contract](https://www.architecture.com/riba-domestic-building-contract) - The Royal Institute of British Architects (RIBA) has launched the RIBA Domestic Building Contract, which is a contract between homeowners and builders. It can be useful for understanding the contractual aspects of domestic building projects.  
  
4. [Construction Procurement Hub](https://www.constructionprocurementhub.co.uk/) - This hub focuses on procurement in the construction industry. It provides information on how procurement can assist in building and maintaining critical infrastructure. It can be helpful for understanding the procurement process for construction projects.  
  
Please note that these resources provide general information and may require further exploration to find specific companies that do contracts for the construction of domestic buildings in the UK government.

You are an expert data analyst who excels at finding public data sources that are helpful for analysis.You are helping a company that provides contract for construction of domestic buildings  
to the UK government. You have identified a list of organizations, each possessing distinct characteristics, which can serve as a foundation for subsequent exploration. Every organization holds the potential to initiate comprehensive investigations. The list of companies you identified is within the text delimited with triple back ticks:  
```To find organizations that contract for the construction of domestic buildings in the UK government or similar geographical areas, you can utilize various public data sources. Here are some steps and search prompts to help you in your task:  
  
1. Government Contracts Search:  
 - Visit the UK government's official website.  
 - Use the search prompt "construction contracts" or "domestic building contracts" to search for relevant information.  
 - Look for sections or pages related to government contracts, tenders, or procurement.  
 - Explore the available data and filter for organizations involved in construction projects.  
  
2. Public Procurement Databases:  
 - Access public procurement databases such as Contracts Finder (https://www.contractsfinder.service.gov.uk/) or TED (https://ted.europa.eu/).  
 - Use the search prompt "construction contracts" or "domestic building contracts" to search for relevant tenders.  
 - Filter the results based on location (e.g., UK) and other criteria to narrow down the list of organizations.  
  
3. Construction Industry Associations:  
 - Explore websites of construction industry associations in the UK, such as the Construction Industry Council (https://www.cic.org.uk/) or the Federation of Master Builders (https://www.fmb.org.uk/).  
 - Look for directories or member lists that include construction companies involved in domestic building projects.  
 - Check if these associations provide any data or reports on construction contracts.  
  
4. Local Government Websites:  
 - Visit the websites of local government authorities in the UK, such as city councils or county councils.  
 - Use the search prompt "construction contracts" or "domestic building contracts" along with the name of the specific region you are interested in.  
 - Look for sections related to procurement, tenders, or contracts to find information on organizations involved in construction projects.  
  
5. Construction Industry Reports:  
 - Search for industry reports or market research related to the construction sector in the UK.  
 - Use search prompts like "UK construction industry report" or "domestic building market analysis."  
 - Look for reports that provide insights into the major players or contractors in the industry.  
  
Remember to verify the credibility and reliability of the sources you find. The provided links and search prompts are general suggestions, and you may need to adapt them based on your specific requirements and the availability of data.  
I found some useful information and resources related to companies that do contract for construction of domestic buildings in the UK government:  
  
1. [Contracts Finder - GOV.UK](https://www.gov.uk/contracts-finder): This website allows you to search for contract opportunities in different sectors, including construction. You can find upcoming opportunities and details of previous contracts.  
  
2. [Agreement with major developers to fund building safety repairs - GOV.UK](https://www.gov.uk/government/news/agreement-with-major-developers-to-fund-building-safety-repairs): This article discusses an agreement with major developers in the UK who have pledged to fix building safety issues.  
  
3. [Building Contract for a Home Owner/Occupier who has not appointed a consultant to oversee the work (HO/B) 2021 - JCT](https://www.jctltd.co.uk/product/building-contract-for-a-home-owner-occupier): This is a specific building contract for homeowners or occupiers who have not appointed a consultant to administer the contract. It provides a direct relationship between the customer and the contractor.  
  
4. [Offsite Construction Solutions - CCS - Crown Commercial Service](https://www.crowncommercial.gov.uk/agreements/RM6184): This service allows suppliers to manufacture construction solutions off-site and then transport them to the site for installation, reducing disruption and lead time.  
  
You can explore these resources for more information and data on companies involved in the construction of domestic buildings in the UK government.  
I found some information related to companies that do contracts for the construction of domestic buildings in the UK government. Here are a few resources you can explore:  
  
1. [Find a Tender](https://www.find-tender.service.gov.uk/) - This service allows you to find and apply for high-value contracts in the UK government. You can search for construction tenders specifically.  
  
2. [Supply2Gov Tenders](https://www.supply2govtenders.co.uk/construction-tenders) - This website provides information on construction tenders in the UK and ROI. It can be a great resource for finding construction contracts.  
  
3. [RIBA Domestic Building Contract](https://www.architecture.com/riba-domestic-building-contract) - The Royal Institute of British Architects (RIBA) has launched the RIBA Domestic Building Contract, which is a contract between homeowners and builders. It can be useful for understanding the contractual aspects of domestic building projects.  
  
4. [Construction Procurement Hub](https://www.constructionprocurementhub.co.uk/) - This hub focuses on procurement in the construction industry. It provides information on how procurement can assist in building and maintaining critical infrastructure. It can be helpful for understanding the procurement process for construction projects.  
  
Please note that these resources provide general information and may require further exploration to find specific companies that do contracts for the construction of domestic buildings in the UK government.```  
Identify public data sources to obtain useful information about these organisations. Provide most up to date information and give usable links to obtain useful data. you can search internet [3] times. if you search internet provide a search prompt that reduces the number of searched you need.

To obtain useful information about organizations that contract for the construction of domestic buildings in the UK government, you can utilize the following public data sources:  
  
1. Companies House (https://www.gov.uk/government/organisations/companies-house) - Companies House is the official register of companies in the UK. You can search for specific construction companies and access their financial statements, directors' information, and other relevant details.  
  
2. Constructionline (https://www.constructionline.co.uk/) - Constructionline is a database of pre-qualified construction contractors and consultants in the UK. It provides information on their capabilities, accreditations, and previous projects. You can search for companies involved in domestic building contracts.  
  
3. TED (https://ted.europa.eu/) - TED (Tenders Electronic Daily) is the online version of the Supplement to the Official Journal of the European Union. It provides access to public procurement notices from the EU and UK. You can search for construction contracts and filter the results based on location and other criteria.  
  
Remember to adapt the search prompts based on your specific requirements and the availability of data.

chatgpt answer with google search:

Here are some public data sources that can provide useful information about organizations involved in the construction of domestic buildings in the UK government:  
  
1. [Construction statistics: sources and outputs](https://www.ons.gov.uk/businessindustryandtrade/constructionindustry/methodologies/constructionstatisticssourcesandoutputs): This document from the Office for National Statistics (ONS) lists various information and datasets related to the construction industry, including output, new orders, and more.  
  
2. [House building data, UK: July to September 2022](https://www.ons.gov.uk/peoplepopulationandcommunity/housing/articles/ukhousebuildingdata/julytoseptember2022): The ONS provides time series data on starts and completions of new build dwellings in the UK and local authorities on a quarterly and annual basis.  
  
3. [Statistical data sets - GOV.UK](https://www.gov.uk/government/statistical-data-sets): The UK government publishes a list of statistical data sets, which may include relevant data on construction and domestic building projects.  
  
4. [Live tables on Energy Performance of Buildings Certificates - GOV.UK](https://www.gov.uk/government/statistical-data-sets/live-tables-on-energy-performance-of-buildings-certificates): These tables show data from certificates lodged on the Energy Performance of Buildings Registers since 2008, including average energy efficiency ratings.  
  
5. [Energy Certificates for Public Buildings - London Datastore](https://data.london.gov.uk/dataset/energy-certificates-for-public-buildings): This dataset provides information on energy use, floorspace, emissions, and efficiency ratings for 40,000 public buildings in the UK.  
  
Please note that these sources provide general information, and you may need to explore them further to find specific data on organizations involved in construction projects.

chatgpt answer with bing search:

Here are some public data sources that can provide useful information about organizations involved in the construction of domestic buildings in the UK government:  
  
1. [Office for National Statistics](https://www.ons.gov.uk/) - The Office for National Statistics provides various datasets and information related to the construction industry in the UK. You can find data on output, new orders, employment, and the structure of businesses in the construction sector.  
  
2. [Find data published by central government, local authorities, and public bodies](https://data.gov.uk/) - This website allows you to search for and access data published by various government entities. You can explore datasets related to the construction industry, including information on small businesses, industry trends, imports, exports, and more.  
  
3. [Overview of house building data](https://www.gov.uk/government/collections/house-building-statistics) - The UK government provides data on newly built dwellings in the country. You can find information on dwellings started, completed, and other relevant statistics related to house building.  
  
4. [Construction Statistics](https://www.gov.uk/government/collections/construction-statistics) - This collection of statistics provides insights into the construction industry in the UK. You can find data on construction new work, including both public and private sector projects.  
  
Please note that these sources provide general information, and you may need to explore further to find specific data on organizations involved in construction projects.

### 2.1.2. Projects

In this section we are searching for examples of projects that organisations have undertaken, ideally with metadata such as the budget, staffing, resources, management approach and timescale of the projects.

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to the UK government. You have identified a list of organizations, each possessing distinct characteristics, which can serve as a foundation for subsequent exploration. The list of companies you identified is within the text delimited with triple back ticks:  
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 - Look for sections or pages related to government contracts, tenders, or procurement.  
 - Explore the available data and filter for organizations involved in construction projects.  
  
2. Public Procurement Databases:  
 - Access public procurement databases such as Contracts Finder (https://www.contractsfinder.service.gov.uk/) or TED (https://ted.europa.eu/).  
 - Use the search prompt "construction contracts" or "domestic building contracts" to search for relevant tenders.  
 - Filter the results based on location (e.g., UK) and other criteria to narrow down the list of organizations.  
  
3. Construction Industry Associations:  
 - Explore websites of construction industry associations in the UK, such as the Construction Industry Council (https://www.cic.org.uk/) or the Federation of Master Builders (https://www.fmb.org.uk/).  
 - Look for directories or member lists that include construction companies involved in domestic building projects.  
 - Check if these associations provide any data or reports on construction contracts.  
  
4. Local Government Websites:  
 - Visit the websites of local government authorities in the UK, such as city councils or county councils.  
 - Use the search prompt "construction contracts" or "domestic building contracts" along with the name of the specific region you are interested in.  
 - Look for sections related to procurement, tenders, or contracts to find information on organizations involved in construction projects.  
  
5. Construction Industry Reports:  
 - Search for industry reports or market research related to the construction sector in the UK.  
 - Use search prompts like "UK construction industry report" or "domestic building market analysis."  
 - Look for reports that provide insights into the major players or contractors in the industry.  
  
Remember to verify the credibility and reliability of the sources you find. The provided links and search prompts are general suggestions, and you may need to adapt them based on your specific requirements and the availability of data.  
I found some useful information and resources related to companies that do contract for construction of domestic buildings in the UK government:  
  
1. [Contracts Finder - GOV.UK](https://www.gov.uk/contracts-finder): This website allows you to search for contract opportunities in different sectors, including construction. You can find upcoming opportunities and details of previous contracts.  
  
2. [Agreement with major developers to fund building safety repairs - GOV.UK](https://www.gov.uk/government/news/agreement-with-major-developers-to-fund-building-safety-repairs): This article discusses an agreement with major developers in the UK who have pledged to fix building safety issues.  
  
3. [Building Contract for a Home Owner/Occupier who has not appointed a consultant to oversee the work (HO/B) 2021 - JCT](https://www.jctltd.co.uk/product/building-contract-for-a-home-owner-occupier): This is a specific building contract for homeowners or occupiers who have not appointed a consultant to administer the contract. It provides a direct relationship between the customer and the contractor.  
  
4. [Offsite Construction Solutions - CCS - Crown Commercial Service](https://www.crowncommercial.gov.uk/agreements/RM6184): This service allows suppliers to manufacture construction solutions off-site and then transport them to the site for installation, reducing disruption and lead time.  
  
You can explore these resources for more information and data on companies involved in the construction of domestic buildings in the UK government.  
I found some information related to companies that do contracts for the construction of domestic buildings in the UK government. Here are a few resources you can explore:  
  
1. [Find a Tender](https://www.find-tender.service.gov.uk/) - This service allows you to find and apply for high-value contracts in the UK government. You can search for construction tenders specifically.  
  
2. [Supply2Gov Tenders](https://www.supply2govtenders.co.uk/construction-tenders) - This website provides information on construction tenders in the UK and ROI. It can be a great resource for finding construction contracts.  
  
3. [RIBA Domestic Building Contract](https://www.architecture.com/riba-domestic-building-contract) - The Royal Institute of British Architects (RIBA) has launched the RIBA Domestic Building Contract, which is a contract between homeowners and builders. It can be useful for understanding the contractual aspects of domestic building projects.  
  
4. [Construction Procurement Hub](https://www.constructionprocurementhub.co.uk/) - This hub focuses on procurement in the construction industry. It provides information on how procurement can assist in building and maintaining critical infrastructure. It can be helpful for understanding the procurement process for construction projects.  
  
Please note that these resources provide general information and may require further exploration to find specific companies that do contracts for the construction of domestic buildings in the UK government.```  
select three companies form the list.  
you are searching for examples of projects that these selected companies have undertaken, ideally with metadata such as the budget, staffing, resources, management approach and timescale of the projects. Even better if you can obtain more detailed task level data about the project. Provide most up to date information and give usable links to obtain useful data. you can search internet multiple times.

Based on the list of resources provided, three companies that can be explored for examples of projects they have undertaken in the construction of domestic buildings in the UK government are:  
  
1. [Contracts Finder - GOV.UK](https://www.gov.uk/contracts-finder): This website allows you to search for contract opportunities in different sectors, including construction. You can find upcoming opportunities and details of previous contracts. By searching for specific companies on this platform, you may be able to find information on their past projects, including budget, staffing, resources, management approach, timescale, and potentially more detailed task-level data.  
  
2. [Agreement with major developers to fund building safety repairs - GOV.UK](https://www.gov.uk/government/news/agreement-with-major-developers-to-fund-building-safety-repairs): This article discusses an agreement with major developers in the UK who have pledged to fix building safety issues. While this resource may not provide specific project-level data, it can give insights into the involvement of major developers in construction projects related to building safety repairs.  
  
3. [Offsite Construction Solutions - CCS - Crown Commercial Service](https://www.crowncommercial.gov.uk/agreements/RM6184): This service allows suppliers to manufacture construction solutions off-site and then transport them to the site for installation, reducing disruption and lead time. By exploring this resource, you may find information on companies that specialize in offsite construction and their involvement in specific projects. However, detailed project-level data may not be available directly on this website.  
  
To obtain more detailed project-level data, it is recommended to further explore the websites of the selected companies, search for their specific projects or contracts, and look for any available reports, case studies, or project profiles. Additionally, you can search for news articles, industry publications, or construction project databases that may provide more comprehensive information on the projects undertaken by these companies.  
  
Please note that the availability of detailed project-level data may vary for each company, and it may require multiple searches and exploration of different sources to gather the most up-to-date and useful information.

chatgpt answer with google search:

Based on my search, here are three companies that do contracts for the construction of domestic buildings in the UK government:  
  
1. London Square: London Square is one of the major developers that have signed the government's building safety remediation contract. They are committed to fixing building safety issues in their projects. You can find more information about their projects and commitments on the [Construction Management Magazine](https://constructionmanagement.co.uk/more-developers-sign-the-building-safety-contract/) website.  
  
2. Telford Homes: Telford Homes is another developer that has signed the government's building safety remediation contract. They have pledged to address building safety issues in their projects. You can find more details about their commitments on the [Construction Management Magazine](https://constructionmanagement.co.uk/more-developers-sign-the-building-safety-contract/) website.  
  
3. Ballymore: Ballymore is also among the developers that have signed the government's building safety remediation contract. They have committed to fixing building safety issues in their projects. You can find additional information about their projects and commitments on the [Construction Management Magazine](https://constructionmanagement.co.uk/more-developers-sign-the-building-safety-contract/) website.  
  
Please note that the information provided is based on the search results and may require further exploration to obtain more detailed data about the projects undertaken by these companies, including budget, staffing, resources, management approach, timescale, and task-level data.

chatgpt answer with bing search:

Here are three companies that you can explore for examples of projects they have undertaken in the construction of domestic buildings in the UK government:  
  
1. [Contracts Finder - GOV.UK](https://www.gov.uk/contracts-finder): This website allows you to search for contract opportunities in different sectors, including construction. You can find upcoming opportunities and details of previous contracts. You can use the search function on the website to find specific projects undertaken by the selected companies.  
  
2. [Agreement with major developers to fund building safety repairs - GOV.UK](https://www.gov.uk/government/news/agreement-with-major-developers-to-fund-building-safety-repairs): This article discusses an agreement with major developers in the UK who have pledged to fix building safety issues. You can explore the website of these major developers to find information about their past projects and the details you are looking for.  
  
3. [Building Contract for a Home Owner/Occupier who has not appointed a consultant to oversee the work (HO/B) 2021 - JCT](https://www.jctltd.co.uk/product/building-contract-for-a-home-owner-occupier): This is a specific building contract for homeowners or occupiers who have not appointed a consultant to administer the contract. While this may not provide specific examples of projects, it can give you insights into the contractual aspects of domestic building projects.  
  
Please note that the provided links and resources are general suggestions, and you may need to further explore these sources to find specific projects and detailed task-level data about the projects undertaken by the selected companies.

You are an expert data analyst who excels at finding public data sources that are helpful for analysis.You are helping a company that provides contract for construction of domestic buildings  
to the UK government. your task is to find publicly available data sources that can provide information about the projects within the context of Construction of domestic buildings focused on the UK government.

As an expert data analyst, I can suggest several publicly available data sources that can provide information about construction projects focused on domestic buildings for the UK government. These sources can help you gain insights into the industry, track trends, and identify potential opportunities. Here are some recommendations:  
  
1. Construction Pipeline: The UK government publishes a Construction Pipeline report that provides information on planned and ongoing construction projects. It includes details about domestic building projects, their status, value, and expected completion dates. You can access this data on the government's website or through the Construction Pipeline API.  
  
2. Contracts Finder: Contracts Finder is a government portal that publishes information about public sector contracts, including construction projects. It allows you to search for specific contracts related to domestic building construction and provides details such as contract value, duration, and the contracting authority. You can access this data on the Contracts Finder website.  
  
3. Office for National Statistics (ONS): The ONS provides various datasets related to construction and housing in the UK. You can find data on construction output, new housing starts, building materials prices, and more. These datasets can help you understand the overall construction landscape and identify trends specific to domestic building projects. Visit the ONS website to explore their construction-related datasets.  
  
4. Local Authority Planning Portals: Local authorities in the UK often have online planning portals where they publish information about planning applications and permissions granted for construction projects. By accessing these portals, you can gather data on domestic building projects at a local level, including project details, planning documents, and contact information for the relevant authorities. Each local authority will have its own planning portal, so you may need to search for the specific authority's website.  
  
5. OpenStreetMap: OpenStreetMap (OSM) is an open-source mapping platform that provides detailed geospatial data. You can use OSM to identify existing and planned domestic building projects by visualizing construction sites, residential areas, and infrastructure. Additionally, OSM data can be combined with other datasets to perform spatial analysis and gain insights into the construction industry. Access OSM data through their website or via their API.  
  
Remember to review the terms of use and licensing agreements for each data source to ensure compliance with any restrictions or requirements. Additionally, consider combining data from multiple sources to get a comprehensive view of the construction of domestic buildings in the UK government context.

chatgpt answer with google search:

Here are some publicly available data sources that can provide information about construction projects within the context of Construction of domestic buildings focused on the UK government:  
  
1. [Construction statistics: sources and outputs](https://www.ons.gov.uk/businessindustryandtrade/constructionindustry/methodologies/constructionstatisticssourcesandoutputs): This document lists a variety of information and datasets on and related to the construction industry, including output, new orders, and more. (Source: Office for National Statistics)  
  
2. [Construction industry - Office for National Statistics](https://www.ons.gov.uk/businessindustryandtrade/constructionindustry): This website provides datasets related to the construction industry in Great Britain, including the value of output and types of construction projects. (Source: Office for National Statistics)  
  
3. [Government construction pipeline - Data.gov.uk](https://www.data.gov.uk/dataset/c780702c-971c-4325-95f9-d8bd128902e9/government-construction-pipeline): The Government Construction Pipeline is a forward look of government-funded construction projects. It provides information on projects that are forecasted or in progress. (Source: Data.gov.uk)  
  
4. [Government construction pipeline - GOV.UK](https://www.gov.uk/government/publications/government-construction-pipeline): This website provides information on government-funded construction projects that are forecasted or in progress. (Source: GOV.UK)  
  
5. [Major projects data - GOV.UK](https://www.gov.uk/government/collections/major-projects-data): The annual report tracks the progress of projects currently in the Government Major Projects Portfolio (GMPP) and provides analysis of how they're performing. (Source: GOV.UK)  
  
These sources should provide you with valuable information about construction projects in the UK government.

chatgpt answer with bing search:

Here are some publicly available data sources that can provide information about construction projects focused on the UK government:  
  
1. [Construction statistics, Great Britain](https://www.gov.uk/government/collections/construction-statistics): This website provides a range of statistics on the construction industry in Great Britain, including the value of output, new orders by sector, number of firms, and more.  
  
2. [Government Major Projects Portfolio](https://www.gov.uk/government/collections/government-major-projects-portfolio-gmpp): The Government Major Projects Portfolio (GMPP) comprises a list of projects with their total Whole Life Cost (WLC) and monetized benefits. It is published by the Infrastructure and Projects Authority and includes projects delivered by various government departments and their arm's-length bodies.  
  
3. [Construction Industry Scheme (CIS) Returns](https://www.gov.uk/government/collections/construction-industry-scheme-cis-returns): This website provides weekly updates on returns for the Construction Industry Scheme (CIS). The data coverage includes information from 2007/08 to the present.  
  
4. [Construction New Orders](https://www.gov.uk/government/collections/construction-new-orders): This collection provides information on construction new orders in the UK. It includes data on the value of new orders by sector, such as private industrial, private housing, and private commercial.  
  
5. [Monthly Construction Output](https://www.ons.gov.uk/businessindustryandtrade/constructionindustry/bulletins/constructionoutputingreatbritain/latest): The Office for National Statistics (ONS) publishes monthly estimates of construction output in Great Britain. The data includes information on new work, repair and maintenance, and sector-level analysis.  
  
These data sources should provide you with valuable information about construction projects within the context of domestic buildings focused on the UK government.

### 2.1.3. Tasks

You are an expert data analyst who excels at finding public data sources that are helpful for analysis.You are helping a company that provides contract for construction of domestic buildings  
to the UK government.  
In the context of [Construction of domestic buildings], our focus revolves around analyzing Tasks individual, repeatable actions integral to projects. These tasks embody the foundational units of [industry-specific operations], representing the highest level of detail commonly accessible within this field. task-level data provides an unparalleled glimpse into the inner workings of [industry-specific processes].  
These datasets harbor the potential to yield meticulously calculated aggregate project statistics. Delving into distinct job roles, one can potentially unearth case studies offering generalized frameworks to comprehend the diverse nuances of tasks within [industry-specific scenarios]. Exploring projects executed through open, collaborative approaches may unearth publicly documented task records, shedding light on the process.  
Especially within sectors characterized by digital workflows, such as [software development], meticulous records at the task level are often amassed. A prime illustration lies in the comprehensive task tracking facilitated by systems like source control, given the inherent nature of tasks conducted through digital mediums.  
your task is to identify available and public data sources to obtain data that I described above in the context of Construction of domestic buildings. Try to be up-to-date. you can search multiple times.

To obtain task-level data for the construction of domestic buildings in the UK, you can explore the following public data sources:  
  
1. Construction Industry Training Board (CITB): The CITB provides various datasets related to the construction industry, including training records, qualifications, and apprenticeships. This data can provide insights into the skills and tasks involved in construction projects.  
  
2. Office for National Statistics (ONS): The ONS offers a range of construction-related datasets, including construction output, employment, and productivity. While these datasets may not provide task-level data directly, they can offer valuable information on the overall construction industry and trends.  
  
3. Local Government Planning Portals: Local government planning portals often provide access to planning applications and associated documents for construction projects. These documents may include detailed project plans, specifications, and task breakdowns.  
  
4. Construction Project Websites: Many construction projects have dedicated websites or online portals where they share project updates, progress reports, and sometimes even task-level information. Exploring these websites can provide insights into the tasks involved in specific construction projects.  
  
5. Construction Industry Trade Associations: Trade associations such as the Federation of Master Builders (FMB) or the National Federation of Builders (NFB) may publish reports, case studies, or research papers that delve into the tasks and processes involved in domestic building construction.  
  
6. Open Data Platforms: Check open data platforms like data.gov.uk or local government open data portals for any publicly available datasets related to construction projects. These platforms may have datasets that include task-level information or provide insights into the construction industry.  
  
Remember to search periodically and explore different sources as new data may become available over time. Additionally, consider reaching out to industry experts, construction companies, or government agencies directly to inquire about any task-level data they may have or be willing to share.

chatgpt answer with google search:

Here are some public data sources that you can use to obtain task-level data for the construction of domestic buildings in the UK:  
  
1. [Construction statistics: sources and outputs](https://www.ons.gov.uk/businessindustryandtrade/constructionindustry/methodologies/constructionstatisticssourcesandoutputs) - This source provides a list of known sources of information available on the construction industry and their outputs. It may contain task-level data.  
  
2. [All data related to construction industry - Office for National Statistics](https://www.ons.gov.uk/businessindustryandtrade/constructionindustry/datalist?filter=datasets) - This dataset contains construction output work types and their percentage of all construction work in Great Britain. It includes monthly, quarterly, and annual data.  
  
3. [Monthly Statistics of Building Materials and Components - GOV.UK](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/16109/Building\_materials\_and\_components\_commentary\_-\_March\_2012.pdf) - This publication provides an overview of recent trends in building materials and components data.  
  
4. [Building - Data.gov.uk](https://www.data.gov.uk/dataset/22e2c169-a0ac-4460-8a06-add54cdc4aee/building) - The 'Building' dataset provides key information about the physical characteristics, energy performance, and occupation costs of each building.  
  
5. [Statistical data sets - GOV.UK](https://www.gov.uk/government/statistical-data-sets) - This source provides various data tables, including energy performance of buildings certificates.  
  
Please note that not all of these sources may specifically provide task-level data for the construction of domestic buildings. It is recommended to explore each source to determine the availability of the desired data.

chatgpt answer with bing search:

I found some public data sources that provide information on construction of domestic buildings and task-level data. Here are a few options:  
  
1. [UK Government - House Building Data](https://www.gov.uk/government/statistical-data-sets/live-tables-on-house-building)  
 - This website provides data on newly built dwellings in the UK, including starts and completions. The data is presented quarterly and includes information on dwelling types, regions, and more.  
  
2. [Office for National Statistics - Construction Industry](https://www.ons.gov.uk/businessindustryandtrade/constructionindustry)  
 - The Office for National Statistics (ONS) provides various datasets and information related to the construction industry. This includes data on output, new orders, employment, and the structure of businesses.  
  
3. [Construction Statistics - GOV.UK](https://www.gov.uk/government/collections/construction-statistics)  
 - This collection of statistics and datasets covers various aspects of the construction industry, including output, new work, and public sector work. It provides a comprehensive overview of the industry.  
  
4. [Land Registry](https://www.gov.uk/guidance/about-the-land-registry)  
 - The Land Registry in the UK maintains records of land and property ownership. While it may not provide task-level data directly, it can be a valuable resource for obtaining information on land ownership and boundaries.  
  
These sources should provide you with a good starting point for obtaining data on construction of domestic buildings and task-level information. Remember to explore each source in detail to find the specific datasets and information that meet your needs.

### 2.1.4. Careers

You are an expert data analyst who excels at finding public data sources that are helpful for analysis.You are helping a company that provides contract for construction of domestic buildings  
to the UK government.  
In the context of Construction of domestic buildings, the objective is to gather data on the progression of careers over time. This involves obtaining data with accompanying metadata (could include technical skills, compensation, and other relevant aspects.) related to job roles within the sector.  
for example Access to individuals' resumes, particularly those within the Construction of domestic buildings, can provide invaluable information regarding potential career trajectories.  
Your task is to find available and up to date data resources and knowledge to provide detailed information into the evolution of careers within the Construction of domestic buildings. Pay special attention to the correlation between various factors and career progression, as well as any trends that might be indicative of typical career paths.  
Feel free to explore various angles, gather statistics, and provide qualitative and quantitative sources. Keep in mind that the ultimate goal is to find data and data sources about how individuals in the Construction of domestic buildings navigate their careers over time and what influences their decisions at different stages. Remeber to be up-to-date. you can search multiple times.

To gather data on the progression of careers within the Construction of domestic buildings sector in the UK, you can explore various data sources and knowledge. Here are some potential avenues to consider:  
  
1. Government Datasets:  
 - Office for National Statistics (ONS): ONS provides various datasets related to employment, earnings, and skills in the UK. You can explore their Labour Force Survey (LFS) and Annual Survey of Hours and Earnings (ASHE) datasets for insights into career progression and compensation within the construction sector.  
 - Department for Education (DfE): DfE offers data on apprenticeships, qualifications, and further education. This can provide information on the educational pathways and skills development within the construction industry.  
  
2. Industry Associations and Trade Unions:  
 - Construction Industry Training Board (CITB): CITB provides research reports and publications related to skills, training, and careers in the construction sector. They may have data on career progression and skills development within the industry.  
 - Unite the Union: As a major trade union in the construction sector, Unite may have resources and reports on career progression, wages, and working conditions within the industry.  
  
3. Professional Bodies and Institutes:  
 - Royal Institution of Chartered Surveyors (RICS): RICS offers research and insights into various aspects of the construction industry, including career paths and skills development.  
 - Chartered Institute of Building (CIOB): CIOB provides resources and publications related to careers and professional development in the construction sector.  
  
4. Online Job Portals and Recruitment Websites:  
 - Websites like Indeed, Totaljobs, and Reed can provide insights into the job market, career progression, and required skills within the construction industry. You can analyze job postings, salary information, and required qualifications to understand career trajectories.  
  
5. Academic Research and Publications:  
 - Explore academic journals and publications related to construction management, career development, and human resources in the construction sector. Platforms like Google Scholar, JSTOR, and ResearchGate can help you find relevant studies and research papers.  
  
6. LinkedIn and Professional Networking Platforms:  
 - LinkedIn can be a valuable resource to gather information on individuals' career trajectories within the construction industry. Analyzing profiles of professionals working in the sector can provide insights into typical career paths, skills, and qualifications.  
  
Remember to critically evaluate the data sources, check for data reliability, and consider the relevance of the information to the UK construction industry. Additionally, keep an eye on industry news and reports for the latest trends and developments in the sector.

chatgpt answer with google search:

I found some data sources and knowledge that can provide detailed information on the evolution of careers within the Construction of domestic buildings sector. Here are a few resources you can explore:  
  
1. [Career and Training Progression Routes in the Construction Industry Final Report - CITB](https://www.citb.co.uk/media/ddkfxsjf/career-and-training-progression-routes-in-the-construction-industry.pdf): This report provides information on career and training progression routes in the construction industry. It includes data and information provided by third parties.  
  
2. [Training for construction, planning and the built environment - Digital Education Resource Archive (DERA)](https://dera.ioe.ac.uk/18702/1/Training\_for\_construction\_planning\_and\_the\_built\_environment\_-\_October\_2013.pdf): This resource offers insights into craft training and the built environment. It covers various levels of training and the skills required.  
  
3. [5 Reasons to Consider a Rewarding Career in Residential Construction](https://www.educationandcareernews.com/certificate-careers/5-reasons-to-consider-a-rewarding-career-in-residential-construction/): This article highlights the reasons why a career in residential construction can be rewarding. It provides qualitative information on job satisfaction and future projections.  
  
Please note that the provided resources may not have specific data on career progression in the Construction of domestic buildings sector, but they offer valuable insights and knowledge related to the industry.

chatgpt answer with bing search:

I found a report titled "Career and Training Progression Routes in the Construction Industry" prepared by BMG Research for the Construction Industry Training Board (CITB) in 2013. This report provides insights into career progression in the construction industry, including the Construction of domestic buildings sector. It explores factors such as technical skills, compensation, and other relevant aspects related to job roles within the sector.  
  
Additionally, the report highlights the challenges of attracting new talent to the construction industry and the need to change perceptions of careers in construction. It also mentions the increasing value of construction new work in Great Britain and provides data on construction output.  
  
You can access the full report [here](https://www.citb.co.uk/documents/research/career-and-training-progression-routes-in-the-construction-industry.pdf).  
  
Please note that this report is from 2013, so it would be beneficial to search for more recent data and sources to gather up-to-date information on career progression in the Construction of domestic buildings sector.

### 2.1.5. Jobs

You are an expert data analyst who excels at finding public data sources that are helpful for analysis.You are helping a company that provides contract for construction of domestic buildings  
to the UK government.  
In the context of [INDUSRTY], your task is to find data and data sources about the daily activities associated with a Project Manager within the industry. Through this exploration, the aim is to find data sources that uncover the diverse approaches to performing the role. we also want to find data sources that help us in identifying requisite tasks, essential skills, time allocation, responsibilities, and compensation related to the role. The ultimate goal is to establish connections between these job roles, the organizations that host them, and the trajectories of individuals' careers within the industry. By doing so, we can better comprehend the factors contributing to role variations and the influence these roles exert on individuals' career paths.  
Articles detailing a day in the life of professionals are also valuable sources. These articles furnish additional insights into the activities encompassed by various roles and may even offer timing information, shedding light on the distribution of time across different tasks.  
Remember to be up-to-date. you can search multiple times.

To find data and data sources about the daily activities associated with a Project Manager within the construction industry, you can start by exploring the following sources:  
  
1. Office for National Statistics (ONS): The ONS provides a wide range of data related to the construction industry, including employment statistics, average wages, and industry trends. You can visit their website and search for relevant reports and publications.  
  
2. Construction Industry Training Board (CITB): The CITB offers various resources related to construction careers, including job roles and skills required. They may have specific information on the role of a Project Manager and the tasks involved.  
  
3. Construction News: This industry publication often features articles and case studies that provide insights into the daily activities of professionals in the construction industry. Search their website for articles related to Project Managers or similar roles.  
  
4. Construction industry trade associations: Associations such as the Construction Industry Council (CIC) or the Chartered Institute of Building (CIOB) may have resources, reports, or publications that discuss the role of a Project Manager and provide insights into their daily activities.  
  
5. LinkedIn: Utilize LinkedIn to search for professionals working as Project Managers in the construction industry. Look for profiles that provide detailed descriptions of their roles and responsibilities. You can also join relevant industry groups or forums to connect with professionals and gain insights from their experiences.  
  
6. Construction project management software providers: Companies that develop project management software for the construction industry often publish blog posts or whitepapers that discuss the role of a Project Manager and the tasks involved. Explore the websites of popular software providers like Procore, PlanGrid, or Autodesk Construction Cloud for such resources.  
  
7. Construction industry recruitment websites: Websites like Indeed, Totaljobs, or Reed often have job descriptions for Project Manager roles in the construction industry. These descriptions can provide valuable information about the required skills, responsibilities, and compensation associated with the role.  
  
Remember to regularly check these sources as new data and articles may be published over time. Additionally, consider using different search terms and variations to ensure comprehensive results.

chatgpt answer with google search:

Here are some data sources and articles about the daily activities of a Project Manager in the construction industry:  
  
Data Sources:  
1. [The Ultimate Guide to Construction Project Management - ProjectManager](https://www.projectmanager.com/guides/construction-project-management): This guide provides information on real-time data for collaboration, planning, scheduling, and resource management in construction projects.  
2. [10 Examples of Data Analytics Sweeping Construction Project Management - Rhumbix](https://www.rhumbix.com/blog/10-examples-of-data-analytics-sweeping-construction-project-management): This article showcases 10 examples of how construction project management teams use data analytics to improve project delivery and performance.  
3. [What's the impact of data on construction? - SNC-Lavalin Group](https://careers.snclavalin.com/blogs/2022-8/what-s-the-impact-of-data-on-construction): This blog post discusses how data sources can make monitoring operations and identifying friction areas easier for construction managers.  
  
Articles:  
1. [A day in the life of a construction project manager - Bridgit Bench](https://gobridgit.com/blog/a-day-in-the-life-of-a-construction-project-manager/): This article provides insights into the daily activities of a construction project manager, including handling immediate concerns, updating processes, and assessing next steps.  
2. [A day in the life of a project manager | APM](https://www.apm.org.uk/jobs-and-careers/career-path/what-does-a-project-manager-do/a-day-in-the-life-spencer/): This article highlights that there is no typical day for a project manager, as tasks and time can vary depending on project needs.  
3. [Being A Construction Manager: Here's An Hourly Breakdown Of A Day In The Life](https://solvepmproblems.com/being-a-construction-manager-a-day-in-the-life/): This article provides an hourly breakdown of a day in the life of a construction project manager, including planning, reviewing to-do lists, and managing project tasks.  
4. [A Day in the Life of a Construction Manager - LiveAbout](https://www.liveabout.com/a-day-in-the-life-of-a-construction-manager-845349): This article discusses the varied nature of a construction manager's day, which can involve meetings with stakeholders and site visits.  
  
Please note that the dates mentioned in the search results indicate when the articles were published or last updated. It's important to review the articles to ensure they provide up-to-date information.

chatgpt answer with bing search:

Here are some data sources and articles that can provide insights into the daily activities of a Project Manager in the construction industry:  
  
Data Sources:  
1. Construction Data: This dataset includes numbers, estimations, and statistics related to construction projects. It can help in analyzing project outcomes, reducing risks, and uncovering critical insights. [Source](https://www.constructiondata.co.uk/)  
  
2. Project Management Field Apps: These apps generate data related to quality, safety, and site management in construction projects. The data includes forms generated from checklists and tasks used for quality control. [Source](https://www.projectmanager.com/)  
  
Articles:  
1. "A Day in the Life of a Construction Project Manager" by Kris Jenson: This article provides insights into the daily activities of a construction project manager, including communication strategies and guiding building projects from preconstruction to completion. [Source](https://www.laytonconstruction.com/blog/the-real-life-of-a-construction-project-manager-kris-jenson-on-communicating-for-success)  
  
2. "What Do Project Managers Do? A Day in the Life of a Construction Manager" by Wrike Team: This article explores the diverse and dynamic responsibilities of a construction project manager, including human relations, managing deliveries, and supervising health and safety. [Source](https://www.wrike.com/blog/what-do-project-managers-do-a-day-in-the-life-of-a-construction-manager/)  
  
Remember to explore these sources and articles to gain a comprehensive understanding of the daily activities of a Project Manager in the construction industry.

## 2.2. Lenses

### 2.2.1. Financial

### 2.2.2. Government Statistics

### 2.2.3. Career

### 2.2.4. Research

### 2.2.5. Professional Associations, Market Analysis

## 2.3. Values

### 2.3.1. Value

### 2.3.2. Issue

## 2.4. Conclusion and Further Work

### 2.5.1. Conclusion

*The conclusion drawn from the automated generation of this chapter is deemed satisfactory, given the complex nature of the problem.*

*We've enhanced the ChatGPT API by adding search capabilities using tools like Langchian utilities, Serper API (*[Serper API](https://serper.dev/))*, and Bing search API. This enables us to respond to prompts both with and without using internet searches.*

*We've established a system of predefined and general prompts, where we fill in the necessary details before giving them to the AI. However, it's important to note that the prompts we've used might not be optimally structured due to our focus on finding a solution. A crucial aspect to consider is that the formulation of prompts significantly impacts the generated outcomes. As ChatGPT generates search prompts based on the initial instructions, refining prompt construction to guide the model in formulating pertinent search queries can substantially elevate the quality of the resultant responses.*

*It's worth mentioning that existing models are constrained by token limitations, leading to a restricted number of feasible searches due to token overage. Given that the gpt-4 model performs significantly better than gpt-3.5 models, best model to use at this point would be gpt-4-32k, which has a higher token limit. Still, we will have limitations in the number of searches but, taking measures to direct searches in desired directions with more sophisticated prompts, we will get very satisfactory results. Especially, considering that the whole process is done automatically and utilizing this, we will be able to generate very useful information in a short time.*

*Considering that APIs operate without memory of previous interactions and there's a possibility of needing responses from earlier prompts for later ones, a solution was required to facilitate this process. The structure of the prompts, especially in the recent arrangement of the report, isn't linear. Consequently, it's not feasible to present all prompts and responses in a conversational style to ChatGPT. Furthermore, adopting such an approach would substantially increase token usage, particularly when internet searches are integrated, introducing additional length and data to the conversation.*

*To address these challenges, a mechanism was devised to access prompt responses as necessary. This was achieved by implementing a system that captures and retains the answers to each prompt within the program. Subsequently, these answers are incorporated into new prompts before being submitted to ChatGPT. To illustrate, if we require responses from prompt 1 to enrich prompt 4, we amalgamate those responses into prompt 4. It's important to note that this process is distinct from the initial formatting of generic prompts at the outset. It exclusively affects the prompts where such integration is required. An instance of this approach is exemplified in the "organisations2.txt" file within the "prompts2\_ready" folder located in chapter 2 source Folder and the resulted prompt is in page 5 of this report.*

*Due to the costs involved in making repetitive API calls to ChatGPT we just ran the program for section 2.1.*

*It's crucial to highlight that the solution outlined in this chapter serves as an illustrative example of the potential for automating such processes in data analysis. Yet, it's important to acknowledge that devising a more intricate and comprehensive solution would necessitate a greater investment of time and potentially involve collaborative teamwork.*

### 2.5.2. Further Work

*There are several potential improvements to the system that could be implemented at this point. Other than what is mentioned in further work and conclusion section in chapter 1, Trying to add scarping functionality would be very valuable to work on. It can be integrated as another function that ChatGPT can call, and the function scrapes the requested URL and gives a summary or formatted representation of the scraping results.*

*Improvements in the readability of the project report can be achieved by adding more guidelines and separation between different sections and responses. As mentioned in chapter 1, ChatGPT responds in Markdown format. So, finding a solution for this will enhance the look and feel of the document. One possible and easy solution is to save the reports in Markdown and then convert it to pdf or docx using another software or service.*

*Download functionality can be added to the system to download the sources provided. This can be achieved by either parsing the document for links or asking ChatGPT to create a python list from the links inside a certain section.*