Data Card

A   Academic

A.1   Competition-Math

Instruction
Given a math problem, retrieve a detailed answer to answer this problem.
Query
Alice and Bob are playing a game. Alice starts first. On Alice's turn, she flips a coin. If she gets a heads, she wins. If not, it becomes Bob's turn. On Bob's turn, he flips a coin. If he gets a tails, he wins. If not, it becomes Alice's turn. What is the probability that Alice wins the game?
Relevant Document
Alice has a $1/2$ chance of winning the game on her first turn. If she doesn't, then the probability that she wins the game on her second turn is $1/8$, since she must not win on her first flip ($1/2$ chance), Bob must not win on his first flip ($1/2$ chance), and then Alice must win on her second flip ($1/2$ chance). The probability that she wins the game on her third turn is $1/32$, and in general, the probability that she wins the game on her k^{th} turn is $(1/2)^{2k-1}$. Thus, the probability that Alice wins is an infinite geometric series with first term $1/2$ and common ratio $1/4$. So, the probability that Alice wins the game is $$\frac{\frac{1}{2}}{1 - \frac{1}{4}} = \boxed{\frac{2}{3}}.$$ Note that the only difference between the odds of Alice or Bob winning is who goes first. Because Bob goes second, the odds of him winning on his k^{th} flip is half of the odds that Alice wins on her k^{th} flip, since Alice must first get a tails before Bob gets a chance to win. Thus, if a is Alice's chance of winning, and b is Bob's chance of winning, then $a = 2b$. Also, since someone must win, $a + b = 1$. It follows that $a = 2/3$ and $b = 1/3$, so Alice has a $\boxed{\frac{2}{3}}$ chance of winning the game.

A.2 ProofWiki_Proof

The following is an example:

Instruction
Given a mathematical statement, retrieve its proofs written in natural mathematical language.
Query
Intersection of Left Cosets of Subgroups is Left Coset of Intersection Let G be a [[Definition:Group\group]]. Let $H, K \leq G$ be [[Definition:Subgroup\subgroups]] of G. Let $a, b \in G$. Let: $:aH \cap bK \neq$ where aH denotes the [[Definition:Left Coset\left coset]] of H by a. Then $aH \cap bK$ is a [[Definition:Left Coset\left coset]] of $H \cap K$.
Relevant Document
Let $x \in aH \cap bK$. Then: $$\begin{aligned} & x \in aH \\ \Rightarrow\ & xH = aH \quad \textit{(Left Cosets are Equal iff Element in Other Left Coset)} \end{aligned} \quad (1)$$ *and similarly:* $$\begin{aligned} & x \in bK \\ \Rightarrow\ & xK = bK \quad \textit{(Left Cosets are Equal iff Element in Other Left Coset)} \end{aligned} \quad (2)$$ *Hence:* $$\begin{aligned} aH \cap bK &= xH \cap xK \\ &= x(H \cap K) \quad \textit{(Corollary to Product of Subset with Intersection)} \end{aligned} \quad (3)$$ *Hence the result by definition of left coset.* ∎

A.3 Stacks_Proof

Instruction
Given a mathematical statement, retrieve its proofs written in natural mathematical language.
Query
stacks-cohomology-lemma-quasi-coherent-weak-serre *Let $\mathcal{X}$ be an algebraic stack.* *1. $(\mathcal{O}_{\mathcal{X}_{lisse,}})$ is a weak Serre subcategory of $Mod(\mathcal{O}_{\mathcal{X}_{lisse,}})$.* *2. $(\mathcal{O}_{\mathcal{X}_{flat,fppf}})$ is a weak Serre subcategory of $Mod(\mathcal{O}_{\mathcal{X}_{flat,fppf}})$.*
Relevant Document

We will verify conditions (1), (2), (3), (4) of Homology, Lemma "homology-lemma-characterize-weak-serre-subcategory". Since 0 is a quasi-coherent module on any ringed site we see that (1) holds. By definition $(\mathcal{O})$ is a strictly full subcategory $Mod(\mathcal{O})$, so (2) holds. Let $\varphi : \mathcal{G} \to \mathcal{F}$ be a morphism of quasi-coherent modules on $\mathcal{X}_{lisse}$, or $\mathcal{X}_{flat,fppf}$. We have $g^* g_! \mathcal{F} = \mathcal{F}$ and similarly for $\mathcal{G}$ and φ, see Lemma "lemma-lisse-etale-modules". By Lemma "lemma-shriek-quasi-coherent" we see that $g_! \mathcal{F}$ and $g_! \mathcal{G}$ are quasi-coherent $\mathcal{O}_{\mathcal{X}}$-modules. Hence we see that $(g_! \varphi)$ and $(g_! \varphi)$ are quasi-coherent modules on $\mathcal{X}$. Since g^* is exact (see Lemma "lemma-lisse-etale") we see that $g^*(g_! \varphi) = (g^* g_! \varphi) = (\varphi)$ and $g^*(g_! \varphi) = (g^* g_! \varphi) = (\varphi)$ are quasi-coherent too (see Lemma "lemma-quasi-coherent"). This proves (3). Finally, suppose that

$$0 \to \mathcal{F} \to \mathcal{E} \to \mathcal{G} \to 0$$

is an extension of $\mathcal{O}_{\mathcal{X}_{lisse}}$-modules (resp. $\mathcal{O}_{\mathcal{X}_{flat,fppf}}$-modules) with $\mathcal{F}$ and $\mathcal{G}$ quasi-coherent. We have to show that $\mathcal{E}$ is quasi-coherent on $\mathcal{X}_{lisse}$, (resp. $\mathcal{X}_{flat,fppf}$). We strongly urge the reader to write out what this means on a napkin and prove it him/herself rather than reading the somewhat labyrinthine proof that follows. By Lemma "lemma-quasi-coherent" this is true if and only if $g_! \mathcal{E}$ is quasi-coherent. By Lemmas "lemma-check-qc-on-etale-covering" and "lemma-lisse-etale-functorial" we may check this after replacing $\mathcal{X}$ by a smooth (resp. fppf) cover. Choose a scheme U and a smooth surjective morphism $U \to \mathcal{X}$. By definition there exists an étale (resp. fppf) covering $\{U_i \to U\}_i$ such that $\mathcal{G}$ has a global presentation over each U_i. Replacing $\mathcal{X}$ by U_i (which is permissible by the discussion above) we may assume that the site $\mathcal{X}_{lisse}$, (resp. $\mathcal{X}_{flat,fppf}$) has a final object U (in other words $\mathcal{X}$ is representable by the scheme U) and that $\mathcal{G}$ has a global presentation

$$\bigoplus_{j \in J} \mathcal{O} \longrightarrow \bigoplus_{i \in I} \mathcal{O} \longrightarrow \mathcal{G} \longrightarrow 0$$

of $\mathcal{O}$-modules where $\mathcal{O} = \mathcal{O}_{\mathcal{X}_{lisse}}$, (resp. $\mathcal{O} = \mathcal{O}_{\mathcal{X}_{flat,fppf}}$). Let $\mathcal{E}'$ be the pullback of $\mathcal{E}$ via the map $\bigoplus_{i \in I} \mathcal{O} \to \mathcal{G}$. Then we see that $\mathcal{E}$ is the cokernel of a map $\bigoplus_{j \in J} \mathcal{O} \to \mathcal{E}'$ hence by property (3) which we proved above, it suffices to prove that $\mathcal{E}'$ is quasi-coherent. [...]

A.4 Stein_Proof

Instruction
Given a mathematical statement, retrieve its proofs written in natural mathematical language.
Query
Fundamental Theorem of Arithmetic: Every natural number can be written as a product of primes uniquely up to order.
Relevant Document
We only prove that $\gcd(a,b) = \gcd(a, b-a)$, since the other cases are proved in a similar way. Suppose $d \mid a$ and $d \mid b$, so there exist integers c_1 and c_2 such that $dc_1 = a$ and $dc_2 = b$. Then $b - a = dc_2 - dc_1 = d(c_2 - c_1)$, so $d \mid b - a$. Thus $\gcd(a,b) \leq \gcd(a, b-a)$, since the set over which we are taking the max for $\gcd(a,b)$ is a subset of the set for $\gcd(a, b-a)$. The same argument with a replaced by $-a$ and b replaced by $b - a$, shows that $\gcd(a, b-a) = \gcd(-a, b-a) \leq \gcd(-a, b) = \gcd(a, b)$, which proves that $\gcd(a,b) = \gcd(a, b-a)$.

A.5 Trench_Proof

Instruction
Given a mathematical statement, retrieve its proofs written in natural mathematical language.
Query

If a and b are any two real numbers, then
$$|a - b| \geq \big||a| - |b|\big| \qquad (4)$$
and
$$|a + b| \geq \big||a| - |b|\big|. \qquad (5)$$

Relevant Document
Replacing a by $a - b$ in [Ref] yields
$$|a| \leq |a - b| + |b|,$$
so
$$|a - b| \geq |a| - |b|. \qquad (6)$$
Interchanging a and b here yields
$$|b - a| \geq |b| - |a|,$$
which is equivalent to
$$|a - b| \geq |b| - |a|, \qquad (7)$$
since $|b - a| = |a - b|$. Since
$$\big||a| - |b|\big| = \begin{cases} |a| - |b| & \text{if } |a| > |b|, \\ |b| - |a| & \text{if } |b| > |a|, \end{cases}$$
(6) *and* (7) *imply* (4). *Replacing b by $-b$ in* (4) *yields* (5), *since $|-b| = |b|$.*

A.6   ProofWiki_Reference

Instruction
Given a mathematical claim, retrieve the set of references (theorems, lemmas, definitions) that occur in its proof.
Query
Kernel of Group Action is Normal Subgroup
Let G be a group *whose* identity *is e. Let X be a* set. *Let $\phi : G \times X \to X$ be a* group action. *Let G_0 denote the* kernel of ϕ. *Then G_0 is a* normal subgroup *of G.*
Relevant Document
Stabilizer is Subgroup
*Let $G, \circ$ be a **group** which **acts on** a **set** X. Let (x) be the **stabilizer of** x **by** G. Then for each $x \in X$, (x) is a **subgroup** of G.*

A.7   Stacks_Reference

Instruction
Given a mathematical claim, retrieve the set of references (theorems, lemmas, definitions) that occur in its proof.
Query
stacks-cohomology-lemma-relative-leray Let $f : \mathcal{X} \to \mathcal{Y}$ and $g : \mathcal{Y} \to \mathcal{Z}$ be quasi-compact and quasi-separated morphisms of algebraic stacks. Let $\mathcal{F}$ be a quasi-coherent sheaf on $\mathcal{X}$. Then there exists a spectral sequence with E_2-page
$$E_2^{p,q} = R^p g_{QCoh,*}(R^q f_{QCoh,*} \mathcal{F})$$
converging to $R^{p+q}(g \circ f)_{QCoh,*} \mathcal{F}$.
Relevant Document

sites-cohomology-lemma-relative-Leray
Let $f : ((\mathcal{C}), \mathcal{O}_\mathcal{C}) \to ((\mathcal{D}), \mathcal{O}_\mathcal{D})$ and $g : ((\mathcal{D}), \mathcal{O}_\mathcal{D}) \to ((\mathcal{E}), \mathcal{O}_\mathcal{E})$ be morphisms of ringed topoi. Let $\mathcal{F}$ be an $\mathcal{O}_\mathcal{C}$-module. There is a spectral sequence with $$E_2^{p,q} = R^p g_*(R^q f_* \mathcal{F})$$ *converging to $R^{p+q}(g \circ f)_* \mathcal{F}$. This spectral sequence is functorial in $\mathcal{F}$, and there is a version for bounded below complexes of $\mathcal{O}_\mathcal{C}$-modules.*

A.8   Stein_Reference

Instruction
Given a mathematical claim, retrieve the set of references (theorems, lemmas, definitions) that occur in its proof.
Query
Euclid
Let p be a prime and $a, b \in \mathbb{N}$. If $p \mid ab$ then $p \mid a$ or $p \mid b$.
Relevant Document
For any integers a, b, n, we have $\gcd(an, bn) = \gcd(a, b) \cdot |n|$.

A.9   Trench_Reference

Instruction
Given a mathematical claim, retrieve the set of references (theorems, lemmas, definitions) that occur in its proof.
Query
The set of irrational numbers is dense in the reals; that is, if a and b are real numbers with $a < b$, there is an irrational number t such that $a < t < b$.
Relevant Document
The rational numbers are dense in the reals; that is, if a and b are real numbers with $a < b$, there is a rational number $\frac{p}{q}$ such that $a < \frac{p}{q} < b$.

A.10   TAD

Instruction
Given a paragraph from the related work section of a paper, where citations are masked with the symbol '&', retrieve the abstracts of the cited reference papers.
Query
in & and & , the authors of & abandon the quantization of image regions . with the same conditional independence assumptions than in their previous model & , the continuous image region representation , modeled by a gaussian mixture model (gmm) , improves the image annotation performance . an additional modification is proposed in & , where a multiple bernoulli distribution for image captions replaces the multinomial distribution.
Relevant Document

> *despite pre-trained language models have proven useful for learning high-quality semantic representations , these models are still vulnerable to simple perturbations . recent works aimed to improve the robustness of pre-trained models mainly focus on adversarial training from perturbed examples with similar semantics , neglecting the utilization of different or even opposite semantics . different from the image processing field , the text is discrete and few word substitutions can cause significant semantic changes . to study the impact of semantics caused by small perturbations , we conduct a series of pilot experiments and surprisingly find that adversarial training is useless or even harmful for the model to detect these semantic changes . to address this problem , we propose contrastive learning with semantic negative examples (cline) , which constructs semantic negative examples unsupervised to improve the robustness under semantically adversarial attacking . by comparing with similar and opposite semantic examples , the model can effectively perceive the semantic changes caused by small perturbations . empirical results show that our approach yields substantial improvements on a range of sentiment analysis , reasoning , and reading comprehension tasks . and cline also ensures the compactness within the same semantics and separability across different semantics in sentence-level .*

A.11 TAS2

Instruction
Given a paragraph from the related work section of a paper, where citations are masked with the symbol '&', retrieve the abstracts of the cited reference papers.
Query
extracting summaryworthy sentences from the source documents is important even if the ultimate goal is to generate abstracts . recent abstractive studies recognize the importance of separating salience estimation from text generation so as to reduce the amount of training data required by encoderdecoder models & & & . an extractive method is often leveraged to identify salient source sentences , then a neural text generator rewrites the selected sentences into an abstract . our pursuit of the dpp method is especially meaningful in this context . as described in the next section , dpp has an extraordinary ability to distinguish redundant descriptions , thereby avoiding passing redundant content to the abstractor that can cause an encoderdecoder model to fail .
Relevant Document
neural network-based methods for abstractive summarization produce outputs that are more fluent than other techniques , but perform poorly at content selection . this work proposes a simple technique for addressing this issue use a data-efficient content selector to over-determine phrases in a source document that should be part of the summary . we use this selector as a bottom-up attention step to constrain the model to likely phrases . we show that this approach improves the ability to compress text , while still generating fluent summaries . this two-step process is both simpler and higher performing than other end-toend content selection models , leading to significant improvements on rouge for both the cnn-dm and nyt corpus . furthermore , the content selector can be trained with as little as 1,000 sentences , making it easy to transfer a trained summarizer to a new domain .

A.12 StackMathQA

Instruction
Given a math question, retrieve its answers from various Stack Exchange sites.
Query

> *Help with convergence in distribution Y is a random variable with $M(t) = \frac{1}{(2-\exp(t))^s}$. Does $\frac{Y-E(Y)}{\sqrt{\mathrm{Var}(Y)}}$ converge in distribution as s tends to infinity? I let $Z = \frac{Y-E(Y)}{\sqrt{\mathrm{Var}(Y)}}$. Differentiating the MGF of Y and letting $t = 0$ we have $E(Y) = s$, $E(Y^2) = s^2 + 2s$, $\mathrm{Var}(Y) = 2s$. Thus MGF of Z:*
>
> $$E(\exp(tz)) = E\left(\exp\left(\frac{t(y-s)}{\sqrt{2s}}\right)\right) = E\left(\exp\left(\frac{ty}{\sqrt{2s}}\right)\exp\left(\frac{-ts}{\sqrt{2s}}\right)\right) = \exp\left(\frac{-ts}{\sqrt{2s}}\right)\frac{1}{\left(2 - \exp\left(\frac{t}{\sqrt{2s}}\right)\right)^s}.$$

Relevant Document

As you have determined:

$$M_Z(t) = \mathbb{E}(\exp(tZ)) = \frac{\exp\left(-t\frac{s}{\sqrt{2s}}\right)}{\left(2 - \exp\left(\frac{t}{\sqrt{2s}}\right)\right)^s} = \left(\frac{\exp\left(-t\frac{1}{\sqrt{2s}}\right)}{2 - \exp\left(\frac{t}{\sqrt{2s}}\right)}\right)^s$$

In order to determine large s behavior, use Taylor series:

$$\frac{\exp\left(-t\frac{1}{\sqrt{2s}}\right)}{2 - \exp\left(\frac{t}{\sqrt{2s}}\right)} = \frac{1 - \frac{t}{\sqrt{2s}} + \frac{t^2}{4s} + o\left(\frac{t^2}{s}\right)}{1 - \frac{t}{\sqrt{2s}} - \frac{t^2}{4s} + o\left(\frac{t^2}{s}\right)} = 1 + \frac{t^2}{2s} + o\left(\frac{t^2}{s}\right)$$

Thus

$$M_Z(t) = \left(1 + \frac{t^2}{2s} + o\left(\frac{t^2}{s}\right)\right)^s$$

The large s limit is now easy to find:

$$\lim_{s\to\infty} M_Z(t) = \exp\left(\frac{t^2}{2}\right)$$

This is the mgf of the standard normal variable, as expected by CLT.

A.13 SciDocs

Instruction
Given a scientific paper title, retrieve paper abstracts that are cited by the given paper.
Query
On Parallelizing the Multiprocessor Scheduling Problem
Relevant Document
*Hypertool: A Programming Aid for Message-Passing Systems	As both the number of processors and the complexity of problems to be solved increase, programming multiprocessing systems becomes more di cult and errorprone. This paper discusses programming assistance and automation concepts and their application to a program development tool for message-passing systems called Hypertool. It performs scheduling and handles the communication primitive insertion automatically. Two algorithms, based on the critical-path method, are presented for scheduling processes statically. Hypertool also generates the performance estimates and other program quality measures to help programmers in improving their algorithms and programs.*

A.14 SciFact

Instruction
Given a scientific claim, retrieve documents that support or refute the claim.
Query

0-dimensional biomaterials show inductive properties.
Relevant Document
New opportunities: the use of nanotechnologies to manipulate and track stem cells.Nanotechnologies are emerging platforms that could be useful in measuring, understanding, and manipulating stem cells. Examples include magnetic nanoparticles and quantum dots for stem cell labeling and in vivo tracking; nanoparticles, carbon nanotubes, and polyplexes for the intracellular delivery of genes/oligonucleotides and protein/peptides; and engineered nanometer-scale scaffolds for stem cell differentiation and transplantation. This review examines the use of nanotechnologies for stem cell tracking, differentiation, and transplantation. We further discuss their utility and the potential concerns regarding their cytotoxicity.

A.15   FairRanking-2020

Instruction
Given a query, retrieve relevant academic articles. Ensure provide fair exposure to different groups of authors, where the group definitions could based on demographics, stature, topic, and others.
Query
hemophilia
Relevant Document
Bleeding in carriers of hemophilia. *A wide range of factor VIII and IX levels is observed in heterozygous carriers of hemophilia as well as in noncarriers. In female carriers, extreme lyonization may lead to low clotting factor levels. We studied the effect of heterozygous hemophilia carriership on the occurrence of bleeding symptoms. A postal survey was performed among most of the women who were tested for carriership of hemophilia in the Netherlands before 2001. The questionnaire included items on personal characteristics, characteristics of hemophilia in the affected family members, and carrier testing and history of bleeding problems such as bleeding after tooth extraction, bleeding after tonsillectomy, and other operations. Information on clotting factor levels was obtained from the hospital charts. Logistic regression was used to assess the relation of carrier status and clotting factor levels with the occurrence of hemorrhagic events. In 2004, 766 questionnaires were sent, and 546 women responded (80%). Of these, 274 were carriers of hemophilia A or B. The median clotting factor level of carriers was 0.60 IU/mL (range, 0.05-2.19 IU/mL) compared with 1.02 IU/mL (range, 0.45-3.28 IU/mL) in noncarriers. Clotting factor levels from 0.60 to 0.05 IU/mL were increasingly associated with prolonged bleeding from small wounds and prolonged bleeding after tooth extraction, tonsillectomy, and operations. Carriers of hemophilia bleed more than other women, especially after medical interventions. Our findings suggest that not only clotting factor levels at the extreme of the distribution, resembling mild hemophilia, but also mildly reduced clotting factor levels between 0.41 and 0.60 IU/mL are associated with bleeding.* *Year=2006.0* *Venue=Blood* *Citations=103.0* *Key Citations=*

B   Code

B.1   APPS

Instruction
Given a programming problem, retrieve Python solutions that solve this problem.
Query

You are given a string s. You have to reverse it — that is, the first letter should become equal to the last letter before the reversal, the second letter should become equal to the second-to-last letter before the reversal — and so on. For example, if your goal is to reverse the string "abddea", you should get the string "aeddba". To accomplish your goal, you can swap the neighboring elements of the string.

Your task is to calculate the minimum number of swaps you have to perform to reverse the given string.

——Input——

The first line contains one integer n ($2 \le n \le 200,000$) — the length of s.

The second line contains s — a string consisting of n lowercase Latin letters.

——Output——

Print one integer — the minimum number of swaps of neighboring elements you have to perform to reverse the string.

——Examples——

Input

5 aaaza

Output

2

[...]

Relevant Document

```
class BIT():
    def __init__(self,n):
        self.BIT=[0]*(n+1)
        self.num=n

    def query(self,idx):
        res_sum = 0
        while idx > 0:
            res_sum += self.BIT[idx]
            idx -= idx&(-idx)
        return res_sum

    #Ai += x O(logN)
    def update(self,idx,x):
        while idx <= self.num:
            self.BIT[idx] += x
            idx += idx&(-idx)
        return
```

[...]

B.2 CodeEditSearch

Instruction
Given a GitHub commit message, retrieve the relevant code diff files associated with this commit and implement the changes described.
Query
Add comparison to "real" value.
Relevant Document

```
_
+++
@@ -1,6 +1,9 @@
/** @file.cc
 * pi approximation
 */
+
+#include <cmath>
+#include <iomanip>
#include <iostream>
#include <random>

@@ -29,5 +32,8 @@
  int main(int argc, char *argv[])
    std::random_device rd;
    std::mt19937 rng(rd());
    - std::cout « "pi = " « ApproximatePi(10000000, rng) « std::endl;
    + double pi = ApproximatePi(10000000, rng);
    + std::cout « std::setprecision(20)
    + « " pi = " « pi « std::endl
    + « "pi - pi = " « pi - M_PI « std::endl;
```

B.3   CodeSearchNet

Instruction
Given the documentation string for a function, retrieve the corresponding function's code.
Query
Returns the link to the checkout page on this site
@param boolean urlSegment If set to TRUE, only returns the URLSegment field
@return string Link to checkout page
Relevant Document

<pre>public static function find_link($urlSegment = false, $action = false, $id = false) {
    $base = CartPageController::config()->url_segment;
    if ($page = self::get()->first()) {
       $base = $page->Link();
    }
    return Controller::join_links($base, $action, $id);
}</pre>

B.4   Conala

Instruction
Given a natural language intent (e.g., a StackOverflow question), retrieve relevant documents from Python libraries on DevDocs that help address the intent. The documents should contain descriptions of single Python functions.
Query
get value of the environment variable 'KEY_THAT_MIGHT_EXIST' with default value 'default_value'
Relevant Document

python.library.os#os.getenv
os.getenv(key, default=None)
Return the value of the environment variable key if it exists, or default if it doesn't. key, default and the result are str. On Unix, keys and values are decoded with sys.getfilesystemencoding() and 'surrogateescape' error handler. Use os.getenvb() if you would like to use a different encoding. Availability: most flavors of Unix, Windows.

B.5 TLDR

Instruction
Given a natural language intent for Bash commands, retrieve relevant Bash manual documents that describe a single concept, such as an argument flag, to address the intent.
Query
delete an ipc queue by key
Relevant Document
ipcrm removes System V inter-process communication (IPC) objects and associated data structures from the system. In order to delete such objects, you must be superuser, or the creator or owner of the object.

B.6 HumanEval-X

Instruction
Given a function declaration and its accompanying docstring, retrieve the subsequent code of the function.
Query

```
import (
    "math"
    "strconv"
    "strings"
)


// Create a function that takes a value (string) representing a number
// and returns the closest integer to it. If the number is equidistant
// from two integers, round it away from zero.
// Examples
[...]
// Note:
// Rounding away from zero means that if the given number is equidistant
// from two integers, the one you should return is the one that is the
// farthest from zero. For example ClosestInteger("14.5") should
// return 15 and ClosestInteger("-14.5") should return -15.
func ClosestInteger(value string) int {
```

Relevant Document

```
if strings.Count(value, ".") == 1 {
    // remove trailing zeros
    for value[len(value)-1] == '0' {
        value = value[:len(value)-1]
    }
}
var res float64
num, _ := strconv.ParseFloat(value, 64)
if len(value) >= 2 && value[len(value)-2:] == ".5" {
    if num > 0 {
        res = math.Ceil(num)
    } else {
        res = math.Floor(num)
    }
[...]
```

B.7 LeetCode

Instruction
Given a LeetCode question, retrieve the solution written in java. Solutions in other programming languages are not relevant.
Query
Title: Target Sum
Content: You are given an integer array nums *and an integer* target.
*You want to build an **expression** out of* nums *by adding one of the symbols ''+'' and ''-'' before each integer in* nums *and then concatenate all the integers.*
For example, if nums = [2, 1]*, you can add a ''+'' before '2' and a ''-'' before '1' and concatenate them to build the expression "+2-1 ".*
*Return the number of different **expressions** that you can build, which evaluates to* target.
Example 1:
Input: nums = [1, 1, 1, 1, 1], target = 3
Output: 5
Explanation: There are 5 ways to assign symbols to make the sum of nums be target 3.
-1 + 1 + 1 + 1 + 1 = 3
+1 - 1 + 1 + 1 + 1 = 3
[...]
Relevant Document

```
public int findTargetSumWays(int[] nums, int target) {
    int sum = 0;
    for (int num : nums) sum += num;
    if (sum < target || (sum + target) % 2 != 0) return 0;
    int target_sum = (sum + target) / 2;
    int[] dp = new int[target_sum + 1];
    dp[0] = 1;
    for (int num : nums) {
        for (int j = target_sum; j >= num; j-) {
            dp[j] += dp[j - num];
        }
    }
    return dp[target_sum];
}
```

The problem can be reduced to a subset sum problem by doing some simple math. First, calculate the sum of all numbers in the array. If the sum of integers is less than the target value or the total sum with the target value is odd, there are no possible combinations. [...]

B.8 MBPP

Instruction
Given a description of a programming task, retrieve a Python solution.
Query
Write a python function to find the first non-repeated character in a given string.
Relevant Document
| ```
def first_non_repeating_character(str1):
    char_order = []
    ctr = {}
    for c in str1:
        if c in ctr:
            ctr[c] += 1
        else:
            ctr[c] = 1
            char_order.append(c)
    for c in char_order:
        if ctr[c] == 1:
            return c
    return None
``` |

B.9 RepoBench

Instruction
Given a piece of code that includes the repository name, file path, import statement, and code context, retrieve the function code from the same repository (but a different file). This function should be one that is used in the next line and has been imported in the provided import statement.
Query

```
## repo_name=vmagamedov/kinko
## file_path=kinko/checker.py
## import_statement
from itertools import chain
    from contextlib import contextmanager
    from collections import namedtuple, deque, defaultdict
    from .refs import ArgRef, FieldRef, ItemRef, Reference, is_from_arg, CtxRef
    from .nodes import Tuple, Number, Keyword, String, List, Symbol, Placeholder
[...]


## code_context
NamedArg['then',
    __var.then_],
NamedArg['else',
    __var.else_]],
[...]
    __var.result]
```

Relevant Document
```class VarArgs(with_metaclass(VarArgsMeta, object)):``` ```   pass```

B.10   SWE-Bench

Instruction
Given the description of an issue in the GitHub repository astropy, retrieve all files from the same repository that need to be updated in order to resolve the issue.
Query
astropy.time.TimeDelta should support conversion to 'datetime.timedelta' *Because of the inheritance 'TimeDelta' has a method 'to_datetime' which is useless.* *It should have a method 'to_timedelta' which returns a 'datetime.timedelta' object or objects.* *Conversion to 'np.datetime64' (for 'Time') and 'np.timedelta64' (for 'TimeDelta') would also be great.*
Relevant Document

```
astropy/time/formats.py
# -*- coding: utf-8 -*-
# Licensed under a 3-clause BSD style license - see LICENSE.rst

import fnmatch
import time
import re
import datetime
from collections import OrderedDict, defaultdict

import numpy as np

from ..utils.decorators import lazyproperty
from .. import units as u
from .. import _erfa as erfa
from .utils import day_frac, two_sum

__all__ = ['TimeFormat', 'TimeJD', 'TimeMJD', 'TimeFromEpoch', 'TimeUnix',
    'TimeCxcSec', 'TimeGPS', 'TimeDecimalYear',
    'TimePlotDate', 'TimeUnique', 'TimeDatetime', 'TimeString',
    'TimeISO', 'TimeISOT', 'TimeFITS', 'TimeYearDayTime',
    'TimeEpochDate', 'TimeBesselianEpoch', 'TimeJulianEpoch',
    'TimeDeltaFormat', 'TimeDeltaSec', 'TimeDeltaJD',
    'TimeEpochDateString', 'TimeBesselianEpochString',
    'TimeJulianEpochString', 'TIME_FORMATS', 'TIME_DELTA_FORMATS',
    'TimezoneInfo']
[...]
```

C Finance

C.1 Apple

Instruction
Given a finance-related question, retrieve relevant passages from Apple's 2022 SEC filings that provide the answer.
Query
What is the aggregate market value of the voting and non-voting stock held by non-affiliates of the Registrant, as of March 25, 2022?
Relevant Document
under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.
Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Act).
Yes ☐ No ☒
The aggregate market value of the voting and non-voting stock held by non-affiliates of the Registrant, as of March 25, 2022, the last business day of the Registrant's most recently

C.2 ConvFinQA

Instruction

In a conversational finance question-answering task, given a list of questions, retrieve passages that contain the answer to the last question. Relevant passages should be sourced from finance reports, as specified by the file name in the query. These passages can be either a text excerpt or a table row.

Query

File: LMT/2017/page_80.pdf

Dialogue:

what was the total weighted average common shares outstanding for diluted computations in 2016 and 2017?

and including the value for 2015?

so what was the average during this time?

how much did the weighted average common shares outstanding for diluted computations change between 2016 and 2017?

Relevant Document

File: LMT/2017/page_80.pdf

Table row-3

Header: [", '2017', '2016', '2015']

['weighted average common shares outstanding for diluted computations', '290.6', '303.1', '314.7']

C.3 FinanceBench

Instruction

Given a question about publicly traded companies, retrieve pages from the specified file that contain the answer to the question.

Query

File: 3M_2018_10K.pdf

Question: What is the FY2018 capital expenditure amount (in USD millions) for 3M? Give a response to the question by relying on the details shown in the cash flow statement.

Relevant Document

File: 3M_2018_10K.pdf

Page: 85

Table of Contents

3M Company and Subsidiaries Consolidated Statement of Cash Flows Years ended December 31 (Millions)

	2018	2017	2016
Cash Flows from Operating Activities			
Net income including noncontrolling interest	$ 5,363	$ 4,869	$ 5,058
Adjustments to reconcile net income including noncontrolling interest to net cash provided by operating activities			
Depreciation and amortization	1,488	1,544	1,474
Company pension and postretirement contributions	(370)	(967)	(383)
Company pension and postretirement expense	410	334	250
Stock-based compensation expense	302	324	298
Gain on sale of businesses	(545)	(586)	(111)
Deferred income taxes	(57)	107	7
Changes in assets and liabilities			
Accounts receivable	(305)	(245)	(313)
Inventories	(509)	(387)	57
Accounts payable	408	24	148
Accrued income taxes (current and long-term)	134	967	101
Other – net	120	256	76
Net cash provided by (used in) operating activities	6,439	6,240	6,662
[...]			
Net increase (decrease) in cash and cash equivalents	(200)	655	600
Cash and cash equivalents at beginning of year	3,053	2,398	1,798
Cash and cash equivalents at end of period	$ 2,853	$ 3,053	$ 2,398

The accompanying Notes to Consolidated Financial Statements are an integral part of this statement. 60

C.4 FinQA

Instruction

Given a question and a specified file name, retrieve relevant passages that contain the answer to the question. The relevant passages can be either text excerpts or table rows from the specified file.
Query
File: ETR/2016/page_23.pdf   *Question:*   *what is the growth rate in net revenue in 2015 for entergy corporation?*
Relevant Document
File: ETR/2016/page_23.pdf   *Table row-1*   *Header: [", 'amount (in millions)']*   *['2014 net revenue', '$ 5735']*

C.5 HC3Finance

Instruction
Given a finance-related question, retrieve the most accurate and relevant answer.
Query
Should the poor consider investing as a means to becoming rich?
Relevant Document
What could a small guy with $100 do to make himself not poor To answer the question directly, not much. Short of investing in something at the exact moment before it goes bananas, then reinvesting into a bigger stock and bigger etc, it's super high risk. A better way is to sacrifice some small things, less coffee, less smokes, less going out partying so that instead of having $100, you have $100 a week. This puts you into a situation where you can save enough to become a deposit on an appreciating asset (choose your own asset class, property in AU for me). Take out a loan for as much as you can for your $100 a week payment and make it interest only with an offset against it, distributions from shares can either be reinvested or put into the offset or in the case of property, rent can be put against the offset, pretty soon you end up with a scenario where you have cash offsetting a loan down to nothing but you still have access to the cash, invest into another place and revalue your asset, you can take out any equity that has grown and put that also into your offset. Keep pulling equity and using the money from the offset as deposits on other assets (it kind of works really well on property) and within 15 years you can build an empire with a passive income to retire on. The biggest thing the rich guys get that the poor guys don't is that debt is GOOD, use someone else's money to buy an appreciating asset then when you pay it back eventually, you own the growth. Use debt to buy more debt for exponential growth. Of course, you need to also invest your time to research what you are investing in, you need to know when you make the decision to buy that it will appreciate, it's no good just buying off a tip, you may as well drop your money on the horses if you want to play it like that. Fortunately, one thing we all have in common regardless of our money is time, we have time which we can invest.

C.6 TAT-DQA

Instruction
Given a question, retrieve a paragraph from the specified financial report that contains or can infer the answer.
Query
File: bce-inc_2019.pdf   *What is the % change in the capital intensity ratio for BCE?*
Relevant Document

> File: bce-inc_2019.pdf
> Page: 0
> Chunk 5
> Bell Wireline 3,183 3,193 10 0.3% Capital intensity ratio 25.8% 26.0% 0.2 pts
> Bell Media 108 114 6 5.3% Capital intensity ratio 3.4% 3.7% 0.3 pts
> BCE 3,988 3,971 (17) (0.4%) Capital intensity ratio 16.6% 16.9% 0.3 pts
> BCE capital expenditures totaled $3,988 million for the year, up $17 million over 2018. This corresponded to a capital intensity ratio of 16.6%, down 0.3 pts compared to last year. Capital spending in the year reflected the following:
> - Greater capital investments in our wireless segment of $33 million

C.7 Trade-the-event

Instruction
Retrieve the full document for a finance news article based on its title.
Query
Investor Alert: Kaplan Fox Investigates Potential Securities Fraud At QuantumScape Corporation
Relevant Document
NEW YORK, Jan. 7, 2021 /PRNewswire/ – Kaplan Fox & Kilsheimer LLP (www.kaplanfox.com) is investigating claims on behalf of investors of QuantumScape Corporation ("QuantumScape" or the "Company") (NYSE: QS). A complaint has been filed on behalf of investors who purchased QuantumScape securities between November 27, 2020 and December 31, 2020, inclusive (the "Class Period").   According to the complaint, throughout the Class Period the defendants made materially false and misleading statements and omitted to disclose that QuantumScape's battery technology was not sufficient for electric vehicle performance as it would not be able to withstand the aggressive automotive environment and likely provided no meaningful improvement over existing battery technology.   On January 4, 2021, Seeking Alpha published an article alleging that several risks associated with QuantumScape's solid-state batteries made them "completely unacceptable for real world field electric vehicles."   Following the publication of the Seeking Alpha article, QuantumScape's stock price fell $34.39 per share, over 40%, to close at $49.96 per share on January 3, 2021.   [...]

C.8 FiQA

Instruction
Given a financial question, retrieve user replies that best answer the question.
Query
How to account for money earned and spent prior to establishing business bank accounts?
Relevant Document

Funds earned and spent before opening a dedicated business account should be classified according to their origination. For example, if your business received income, where did that money go? If you took the money personally, it would be considered either a 'distribution' or a 'loan' to you. It is up to you which of the two options you choose. On the flip side, if your business had an expense that you paid personally, that would be considered either a 'contribution of capital' or a 'loan' from you. If you choose to record these transactions as loans, you can offset them together, so you don't need two separate accounts, loan to you and loan from you. When the bank account was opened, the initial deposit came from where? If it came from your personal funds, then it is either a 'contribution of capital' or a 'loan' from you. From the sound of your question, you deposited what remained after the preceding income/expenses. This would, in effect, return the 'loan' account back to zero, if choosing that route. The above would also be how to record any expenses you may pay personally for the business (if any) in the future. Because these transactions were not through a dedicated business bank account, you can't record them in Quickbooks as checks and deposits. Instead, you can use Journal Entries. For any income received, you would debit your capital/loan account and credit your income account. For any expenses, you would debit the appropriate expense account and credit your distribution/loan account. Also, if setting up a loan account, you should choose either Current Asset or Current Liability type. The capital contribution and distribution account should be Equity type. Hope this helps!

D   Web

D.1   ELI5

Instruction
Given a question, retrieve passages from Wikipedia that can help answer the question.
Query
In Trading Places (1983, Akroyd/Murphy) how does the scheme at the end of the movie work? Why would buying a lot of OJ at a high price ruin the Duke Brothers?
Relevant Document
Content: Trading Places is a 1983 American comedy film directed by John Landis and starring Dan Aykroyd and Eddie Murphy. It tells the story of an upper-class commodities broker and a homeless street hustler whose lives cross paths when they are unknowingly made part of an elaborate bet. Ralph Bellamy, Don Ameche, Denholm Elliott, and Jamie Lee Curtis also star. The storyline is often called a modern take on Mark Twain's classic 19th-century novel Ṫhe Prince and the Pauper.

D.2   Fever

Instruction
Given a claim, retrieve passages from Wikipedia that support or refute the claim.
Query
One True Thing is an American film.
Relevant Document
Content: One True Thing is a 1998 American drama film directed by Carl Franklin. It tells the story of a woman who is forced to put her life on hold in order to care for her mother who is dying of cancer. It was adapted by Karen Croner from the novel by Anna Quindlen. The novel and film are based on Anna Quindlen's real life struggle with the death of her mother, Prudence Pantano Quindlen, from ovarian cancer in 1972.

D.3   AY2

Instruction
In this entity linking task, you are given a paragraph containing a single entity mention, which is marked by two special tokens: [START_ENT] and [END_ENT]. Your task is to retrieve the relevant Wikipedia page for the tagged entity mention.
Query
CRICKET - LEICESTERSHIRE TAKE OVER AT TOP AFTER INNINGS VICTORY . LONDON 1996-08-30 West Indian all-rounder Phil Simmons took four for 38 on Friday as Leicestershire beat Somerset by an innings and 39 runs in two days to take over at the head of the county championship . Their stay on top , though , may be short-lived as title rivals Essex , Derbyshire and Surrey all closed in on victory while Kent made up for lost time in their rain-affected match against Nottinghamshire . After bowling Somerset out for 83 on the opening morning at Grace Road , Leicestershire extended their first innings by 94 runs before being bowled out for 296 with England discard Andy Caddick taking three for 83 . Trailing by 213 , [START_ENT] Somerset [END_ENT] got a solid start to their second innings before Simmons stepped in to bundle them out for 174 . Essex , however , look certain to regain their top spot after Nasser Hussain and Peter Such gave them a firm grip on their match against Yorkshire at Headingley . Hussain , considered surplus to England 's one-day requirements , struck 158 , his first championship century of the season , as Essex reached 372 and took a first innings lead of 82 . [...]
Relevant Document
Content: Somerset County Cricket Club is one of eighteen first-class county clubs within the domestic cricket structure of England and Wales. It represents the historic county of Somerset. Founded in 1875, Somerset was initially regarded as a minor county until official first-class status was gained in 1895. Somerset has competed in the County Championship since 1891 and has subsequently played in every top-level domestic cricket competition in England. The club's limited overs team was formerly named the Somerset Sabres, but is now known only as Somerset.

D.4 WnCw

Instruction
In this entity linking task, you are given a paragraph containing a single entity mention, which is marked by two special tokens: [START_ENT] and [END_ENT]. Your task is to retrieve the relevant Wikipedia page for the tagged entity mention.
Query
[...] In text import import wizard Choose Delimited if the data are delimited and Fixed width if the data are fixed width . In this example either option can be chosen . Set the Start import at row to the first row that has data , skipping any preceding text such as explanation of the data . In this example there is now preceding text , so Start import at row 1 . So Step 1 : choose [START_ENT] Delimited [END_ENT] and Start Import at Row 1 and hit Next . This yields Step 2 . The default Delimiter is Tab . Change this to Space . Then check that the Data preview has correctly split up the data , as is the case below . Hit next . This yields step 3 . In this case leave the column data format as general . Hit Finish . This should give you an Excel worksheet with 2 columns and 5 rows in cells A1
Relevant Document
Content: Formats that use delimiter-separated values (also DSV) store two-dimensional arrays of data by separating the values in each row with specific delimiter characters. Most database and spreadsheet programs are able to read or save data in a delimited format. Due to their wide support, DSV files can be used in data exchange among many applications.

D.5 WnWi

Instruction

In this entity linking task, you are given a paragraph containing a single entity mention, which is marked by two special tokens: [START_ENT] and [END_ENT]. Your task is to retrieve the relevant Wikipedia page for the tagged entity mention.
Query
Robin B̈ob C̈overdale (birth registered October → December in Sculcoates district) is an English professional Rugby League World Cup winning footballer of the 1950s and '60s, playing at representative level for Great Britain, and at club level for Hull, Wakefield Trinity, and Hull Kingston Rovers, as a, i.e. number 8 or 10, during the era of. Bob Coverdale won caps for Great Britain while at Hull in the 1954 Rugby League World Cup against Australia, France, New Zealand, and France. Bob Coverdale played Right -, i.e. number 10 in all four of Great Britain's 1954 Rugby League World Cup matches, including Great Britain's 16-12 victory over France in the 1954 Rugby League World Cup final at Parc des Princes, Paris on Saturday 13 November 1954. Bob Coverdale played in all three of Hull's defeats in the 1953–54, 1954–55, and [START_ENT] 1955–56 [END_ENT] Yorkshire Cup.
Relevant Document
Content: The 1955–56 Rugby Football League season was the 61st season of rugby league football.

D.6   TREx

Instruction
Given a structured input in the form of 'subject entity [SEP] relation,' retrieve Wikipedia passages that contain the object entities and confirm the subject-relation-object fact.
Query
Death SS [SEP] genre
Relevant Document
Content: Death SS (later also intended as a contraction of In Death of Steve Sylvester) is an Italian heavy metal band.

D.7   zsRE

Instruction
Given a structured input in the form of 'subject entity [SEP] relation,' retrieve Wikipedia passages that contain the object entities and confirm the subject-relation-object fact.
Query
USA-5 [SEP] time of spacecraft launch
Relevant Document
Content: USA-5, also known as Navstar 10, GPS I-10 and GPS SVN-10, was an American navigation satellite launched in 1984 as part of the Global Positioning System development programme. It was the tenth of eleven Block I GPS satellites to be launched.

D.8   WoW

Instruction
Given a conversation based on information retrieved from Wikipedia, retrieve relevant passages that can support the next utterance.
Query

I love the 1980s music one of my favorite artists is michael jackson
You mean all of the major events and trends in pop music in the 80s? I love 80s music!
yes thriller was one of the best albums ever made every song was a hit
Yeah Thriller was quite good, the 80s also saw the emergence of New Wave as a genre.
what is the new wave genre. i have never heard of that
New Wave was similar to Punk Rock but also included electronic elements, Tears for Fears is an example.
i have never heard of tears for fears before. what where there singles.

Relevant Document
Content: Tears for Fears are an English pop rock band formed in Bath, England in 1981 by Roland Orzabal and Curt Smith. Founded after the dissolution of their first band, the mod-influenced Graduate, Tears for Fears were initially associated with the new wave synthesiser bands of the early 1980s. Later, the band branched out into mainstream rock and pop and attained international chart success. Tears for Fears were part of the MTV-driven Second British Invasion of the US.

D.9 ArguAna

Instruction
Given a claim, find documents that refute the claim.

Query
IBeing vegetarian helps the environment
Becoming a vegetarian is an environmentally friendly thing to do. Modern farming is one of the main sources of pollution in our rivers. Beef farming is one of the main causes of deforestation, and as long as people continue to buy fast food in their billions, there will be a financial incentive to continue cutting down trees to make room for cattle. Because of our desire to eat fish, our rivers and seas are being emptied of fish and many species are facing extinction. Energy resources are used up much more greedily by meat farming than my farming cereals, pulses etc. Eating meat and fish not only causes cruelty to animals, it causes serious harm to the environment and to biodiversity. For example consider Meat production related pollution and deforestation
At Toronto Ž019s 1992 Royal Agricultural Winter Fair, Agriculture Canada displayed two contrasting statistics: Ž01cit takes four football fields of land (about 1.6 hectares) to feed each Canadian Ž01d and Ž01cone apple tree produces enough fruit to make 320 pies.Ž01d Think about it Ž014 a couple of apple trees and a few rows of wheat on a mere fraction of a hectare could produce enough food for one person! [1] [...]

Relevant Document
animals environment general health health general weight philosophy ethics
You don't have to be vegetarian to be green. Many special environments have been created by livestock farming – for example chalk down land in England and mountain pastures in many countries. Ending livestock farming would see these areas go back to woodland with a loss of many unique plants and animals. Growing crops can also be very bad for the planet, with fertilisers and pesticides polluting rivers, lakes and seas. Most tropical forests are now cut down for timber, or to allow oil palm trees to be grown in plantations, not to create space for meat production. British farmer and former editor Simon Farrell also states: "Many vegans and vegetarians rely on one source from the U.N. calculation that livestock generates 18% of global carbon emissions, but this figure contains basic mistakes. It attributes all deforestation from ranching to cattle, rather than logging or development. It also muddles up one-off emissions from deforestation with on-going pollution." He also refutes the statement of meat production inefficiency: "Scientists have calculated that globally the ratio between the amounts of useful plant food used to produce meat is about 5 to 1. If you feed animals only food that humans can eat – which is, indeed, largely the case in the Western world – that may be true. But animals also eat food we can't eat, such as grass. So the real conversion figure is 1.4 to 1." At the same time eating a vegetarian diet may be no more environmentally friendly than a meat-based diet if it is not sustainably sourced or uses perishable fruit and vegetables that are flown in from around the world. Eating locally sourced food can have as big an impact as being vegetarian.

D.10 CQADupStack

Instruction
Retrieve duplicate questions from StackOverflow forum.
Query
Turn a Android Phone with broken screen into dedicated Web server
Relevant Document
Setting up web server on flooded HTC Wildfire S *A couple of months ago I got my Wildfire S accidentally flooded. It was just collecting dust since then, but today I came up with an idea to get a web server running on it. As far as I know, everything works fine except the display. So here's my question: is there a way to set up a server on that phone without the need to use the touchscreen? Maybe I could install some light linux distribution and configure it via USB/SSH? Thanks!*

D.11   Quora

Instruction
Given a question, retrieve questions that are semantically equivalent to the given question.
Query
Which question should I ask on Quora?
Relevant Document
What are good questions to ask on Quora?

D.12   TopiOCQA

Instruction
In conversational information seeking, given a dialogue, retrieve passages from Wikipedia to asnwer the last question.
Query
Dialogue Context: *when will the new dunkirk film be released on dvd* *18 December 2017* *what is this film about?* *Dunkirk evacuation of World War II* [...] *are whales captured here?* *Whaling was an important economic activity from the 9th until the 13th century by by 1902 the whaling had ended* *any particular whale species that was hunted?* *Gray whale* *Question: where are they found?*
Relevant Document
Gray whale [SEP] Introduction *This mammal is descended from filter-feeding whales that appeared at the beginning of the Oligocene, over 30 million years ago. The gray whale is distributed in an eastern North Pacific (North American), and an endangered western North Pacific (Asian), population. North Atlantic populations were extirpated (perhaps by whaling) on the European coast before AD 500, and on the American coast around the late 17th to early 18th centuries. Even so, on May 8, 2010, a sighting of a gray whale was confirmed off the coast of Israel in the Mediterranean Sea, leading some scientists to think they might be repopulating old breeding grounds that have not been visited for centuries.*

D.13 Touche

Instruction
Given a query, retrieve documents that answer the query.
Query
Should teachers get tenure?
Relevant Document
Colleges should abolish the ability for teachers to be tenured.   *Since I assume their opening statement was made in their R1 post, I will begin mine as well. I will be arguing against the idea that tenure for college professors should be abolished. I have three main claims: [Claim 1]: Tenure is a necessity [Claim 2]: Tenured teachers can still be fired (and other misconceptions) [Claim 3]: Research supports tenure [C1]: Tenure is a necessity The concept of tenure dates back over 100 years ago to the early 20 century, when working in the field of education was much different than what it is today [1]. It was female-dominated, classrooms were larger, and working conditions were poorer [2]. Before tenure, teachers could be fired for any reason. If a teacher had the audacity to get married or, even more horrific, pregnant, the schoolboard could immediately fire her. Tenure and teachers' unions were created to guarantee some amount of job protection for teachers. They wanted the peace of mind to know their job wouldn't be terminated for seemingly no reason. At the high school level, most schools require teachers work at the same school for 3-5 years before being considered for tenure, and there are many factors taken into account, with the most important . [...]*

D.14 ACORDAR

Instruction
Given a question, identify and retrieve datasets where the keywords in the query may be found in either the metadata or the actual data of the dataset.
Query
What datasets are available on patent infringement lawsuits filed in a specific industry or region?
Relevant Document
{'license': 'License not specified',   *'size': 'None',*   *'created': '2015-01-30T17:03:21.241594',*   *'dataset_id': '1174',*   *'description': 'Bills Signed By Governor Kitzhaber 2014',*   *'title': 'Bills Signed By Governor Kitzhaber 2014',*   *'tags': ''}*

D.15 CPCD

Instruction
The query is a dialogue history in which the user seeks music recommendations. In each turn, the system recommends some music, and the user provides feedback indicating whether they like or dislike the recommendations. Based on the user's preferences and requests, retrieve music that the user is likely to enjoy as the recommendation response.
Query

User: I need a breakup playlist full of depressing songs please
System: any specific genres or artists?
User Feedback: I like these: Only Love Can Break Your Heart. And I dislike these: Hurt, SAD!
User: Love the Neil Young but not a Johnny Cash fan - how about some pop songs?
System: Here are some songs to try!
User Feedback: I like these: Don't Speak, Someone Like You, Torn. And I dislike these: Back To Black, Ordinary People
User: Great! How about some of the darker British New Wave stuff - The Cure or Echo and the Bunnymen?
System: I am learning some new music thanks to you! I have added some songs how are these?
User Feedback: I like these: Cold (Remastered Version), The Killing Moon, Gone, Gone, Gone. And I dislike these: Catch (2006 Remaster), Lips Like Sugar, Lovesong
User: Awesome! Ok let's get to the angry part - how about some Elvis Costello and Chris Isaak?
System: Sure thing! Whats the next step in the healing process?!
User Feedback: I like these: Baby Did a Bad Bad Thing, Somebody's Crying, I'm Not Angry, Wicked Game, Lie To Me. And I dislike these: Radio, Radio (2021 Remaster), When I Was Cruel No.2, Less Than Zero
User: Let's skip on to the post breakup new relationship phase! How about some happy, bouncy stuff? :)
Relevant Document
{'track_titles': 'Let's Go Crazy', 'track_release_titles': 'Purple Rain', 'track_artists': ['Prince and the Revolution'], 'track_canonical_ids': 'C04P6W8MDBg'}

D.16 ChroniclingAmericaQA

Instruction
Given a question, retrieve newspaper pages that contain the answer of the question from American historical newspaper dataset Chronicling America
Query
How many acres is the Salem Laundry Co. on South Liberty Street?
Relevant Document
Has only a few acres in cultivation, with about 10 acres cleared. The wood and piling timber on this is worth all they ask for the place. It is a special bargain at $50 per acre. Yours, COURTIER & VICE, 143 S. Liberty Street. Promptness is another point. On one of our good, if we promise your package for a certain time, you'll have it at that time. We use a system that enables us to tell just when an article will be completely laundered, and we make no promises that we cannot fulfill. Do you get perfect work and get it always on time? If not, try us. Salem Laundry Co., 1 Md-160 South Liberty Street, Telephone Main 58.

D.17 NTCIR

Instruction
Given a search query, retrieve relevant datasets from Data.gov and e-Stat that contain the requested information.
Query
oysters dislike east coast
Relevant Document
The Millennium Challenge Corporation (MCC) provided funds for the upgrade of two roads in Vanuatu. These were the Efate Ring Road and the Santo East Coast Road. Both these roads were unpaved (coral) roads and were sealed with a double surface dressing in 2009/10. The length of road sealed in Efate was 92.5 km and 57.2 km in Santo. An HDM-4 analysis was conducted to examine:) The economic viability of upgrading the two roads ii) The future performance of the roads

D.18 PointRec

Instruction
Given a user's request, recommend a point of interest (POI) that best matches the user's intent. Use the following metadata for reference: {'Group': 'I', 'Main Category': 'Arts & Entertainment', 'Sub Categories': ['Museums', 'Art Galleries', 'Castles'], 'Constraints_text': ['I like museums, castles, art galleries, night life, monuments.'], 'Constraints': {'NICE_TO': ['museums', 'castles', 'art galleries', 'monuments']}, 'Request_text': ['Can anyone recommend attractions to see?'], 'Request': ['attractions'], 'City': 'Munich', 'Country': 'DE', 'State': None}

Query
Travelling to Germany ! 10 points!!?   *Hi there, i will be travelling to Germany for 2 weeks in July. Berlin, Hamburg, Frankurt and Munich. Can anyone recommend attractions to see? I like museums, castles, art galleries, night life, monuments. thank you!*

Relevant Document
{'name': 'New Pinakothek',   *'alias': 'neue-pinakothek-münchen',*   *'main_category': 'Arts & Entertainment',*   *'sub_categories': 'Art Museums, ',*   *'rating': 4.0, 'price': None, 'address': 'Barer Str. 29', 'city_from_postal': 'Kreisfreie Stadt München', 'city': 'Munich', 'zip_code': '80799', 'country_code': 'DE', 'state_code': 'BY', 'phone': '+498923805195', 'review_count': 43,*   *'snippets': [{'url': 'https://www.pinakothek.de/en/visit/neue-pinakothek',*   *'snippet': 'Neue Pinakothek "Rediscover the 19th Century" is the motto of the Neue Pinakothek. A richly varied tour provides an opportunity to view paintings and sculptures of the Neoclassical, Romantic, Impressionist, Art Nouveau and Gründerzeit periods and to encounter masterpieces by major pioneers of Modern art: Max Liebermann, Edouard Manet, Claude Monet, Vincent van Gogh and Paul Cézanne.',*   *'title': 'Neue Pinakothek | DIE PINAKOTHEKEN',*   *'family_friendly': 1},*   [...]   *{'url': 'https://www.pinakothek.de/en/visit',*   *'snippet': 'PREVENTION MEASURES: CLOSED FROM MARCH 14th ON In view of the dynamic spread of the coronavirus SARS-CoV-2, the Alte Pinakothek and Pinakothek der Moderne, the Museum Brandhorst, the Schack Collection and all state galleries will be closed to the public from March 14, initially until the end of the Easter holidays (April 20).',*   *'title': 'Visit | DIE PINAKOTHEKEN',*   *'family_friendly': 1}]}*

D.19 ProCIS-Dialog

Instruction
Given a multi-party human conversation (such as a Reddit post and its comments), retrieve relevant documents from Wikipedia to provide contextual information. The criteria for relevance are as follows: *- Relevance: The document is directly related to the conversation, providing substantial useful context, background, or additional information that enhances the understanding of the conversation. This includes articles about the main topic, key individuals, events, or concepts mentioned in the conversation.*   *- Partially Relevant: The document is somewhat related to the conversation. It may provide some context or additional information but is not directly tied to the main topic of the conversation. This includes articles about broader themes, tangential topics, or peripheral concepts mentioned in the conversation.*   *- Irrelevant: The document is not related to the conversation in any way. It does not provide any useful context or additional information to the conversation.*

Query

Post
lolbacon: Why isn't the reddit alien dressed like Thriller-era Michael Jackson?
Seriously guys, the fuck?
Thread
watso4183: I'd rather see it in a prison jump suit. Anyone else forgetting the terrible things this man did?
dhaggerfin: Enlighten us with sources please.
watso4183: Your kidding me right?
dhaggerfin: From wikipedia:
> Jackson was accused of child sexual abuse by a 13-year-old child named Jordan Chandler and his father Evan Chandler. Sometime afterwards, Evan Chandler was tape-recorded saying amongst other things, "If I go through with this, I win big-time. There's no way I lose. I will get everything I want and they will be destroyed forever...Michael's career will be over". A year after they had met, under the influence of a controversial sedative, Jordan Chandler told his father that Jackson had touched his penis.
You tell me what that sounds like. Oh, and how about the MILLIONS of dollars he donated to charity:
> He donated his $5 million share from the Victory Tour to charity colorboxmediumgray[...]
Relevant Document
Timeline_of _Reddit
This is a timeline of Reddit, an entertainment, social networking, and news website where registered community members can submit content, such as text posts or direct links, making it essentially an online bulletin board system.

D.20   ProCIS-Turn

Instruction
Given a multi-party human conversation (such as a Reddit post and its comments), retrieve relevant documents for the following utterance in the thread to provide contextual information: Sabakunoneji: 42 is a green and blue. I see multiple digit numbers as their individual colors side by side. Same with pi
Criteria for Relevance:
- Relevance: The document is directly related to the utterance, providing substantial useful context, background, or additional information that enhances the understanding of the utterance.
- Partially Relevant: The document is somewhat related to the utterance. It may provide some context or additional information but is not directly tied to the main topic of the utterance.
- Irrelevant: The document is not related to the utterance in any way. It does not provide any useful context or additional information to the utterance.
Query
Post
Sabakunoneji: I'm synesthetic. AMA
`http://en.wikipedia.org/wiki/Synesthesia`
I have grapheme -> color, sound -> color, and number form synesthesia. Ask away!
Thread
[deleted]: So what does the number 42 do for you? And what does pi do for you? Just curious.
Sabakunoneji: 42 is a green and blue. I see multiple digit numbers as their individual colors side by side. Same with pi
[deleted]: So when you see certain colors do you think of them mathematically? [...]
Relevant Document
Pi_(disambiguation)
Pi or π is a mathematical constant equal to a circle's circumference divided by its diameter. Pi, π or Π may also refer to: Pi (letter), a Greek letter

D.21   QuanTemp

Instruction
Given a numerical claim, retrieve documents that can verify the claim.
Query
Available COVID-19 vaccines are not linked to infertility or breast-feeding complications; 6,402 people did not die from the Moderna vaccine in February
Relevant Document
Days after U.S. President Joe Biden said he would direct states to make all adults eligible for COVID-19 vaccines by May 1, a post on social media claimed that the vaccines cause infertility and that nursing mothers who have been vaccinated can cause harm to their babies. In addition, the post claims that over 6,000 people over the age of 50 died from the Moderna vaccine in February 2021. These claims are false. The main post in question, available here, makes three main claims: 1) that the vaccine "renders men and women sterile," 2) that "if you are a nursing mother your baby can get serious side affects (sic)" and 3) that "6402 people over 50 died from the Moderna vaxx in February alone." Other social media posts making similar claims about vaccine-related infertility can be found here and here. At the time of this article's publication, over 115 million doses of the Pfizer-BioNTech, Moderna and Janssen vaccines, the three COVID-19 vaccines granted Emergency Use Authorization by the U.S. Food & Drug Administration (FDA), have been administered in the United States according to the U.S. Centers for Disease Control and Prevention (CDC) (here, here). The Pfizer/BioNTech and Moderna vaccines use new messenger RNA (ribonucleic acid) technology to create an immune response and both require two shots. [...]

D.22 WebTableSearch

Instruction
Given a question, retrieve relevant tabel to answer the question.
Query
world interest rates table
Relevant Document
*Deposit interest rate (%)	Data	Table*
['Switzerland', 'Singapore', 'Hong_Kong', 'Japan', 'Solomon_Islands', 'Vanuatu', 'Papua_New_Guinea', 'Canada', 'Czech_Republic', 'Bahrain', 'Algeria', 'Cambodia', 'Bhutan', 'Haiti', 'San_Marino', 'China', 'Guyana', 'Nepal', [...] , 'Zimbabwe', 'East_Timor', 'Brunei', 'Slovakia', 'Kyrgyzstan', 'Laos', 'Syria', 'Faroe_Islands'
2010-2014 2005-2009 2000-2004 1995-1999 1990-1994 1985-1989 1980-1984 Hide this Embed Metadata Graph Map Table View in WDI Tables World Development Indicators Catalog Sources International Monetary Fund, International Financial Statistics and data files. Deposit interest rate is the rate paid by commercial or similar banks for demand, time, or savings deposits. The terms and conditions attached to these rates differ by country, however, limiting their comparability. Deposit interest rate (%)
Country name Switzerland Singapore Hong Kong SAR, China Japan Timor-Leste West Bank and Gaza Brunei Darussalam Solomon Islands Macao SAR, China Vanuatu Papua New Guinea Canada Czech Republic Bahrain Algeria Cambodia Bhutan Haiti San Marino China [...]

D.23 FairRanking_2021

Instruction
Given a description of a Wikiproject (title, keywords, and project scope), retrieve relevant documents from Wikipedia that are in need of editing to improve the quality of the documents. Ensure that documents that are about, or somehow represent, certain protected characteristics receive a fair exposure

Query
Title: Agriculture
Keywords: ['agriculture', 'crops', 'livestock', 'forests', 'farming']
Scope: This WikiProject strives to develop and improve articles at Wikipedia related to crop production, livestock management, aquaculture, dairy farming and forest management. The project also covers related areas, including both governmental and NGO regulatory agencies, agribusiness, support agencies such as 4H, agricultural products including fertilizers and herbicides, pest management, veterinary medicine and farming equipment and facilities.

Relevant Document
Abbreviation
*manuscript text with scribal abbreviations An **abbreviation** (from Latin brevis, meaning short) is a shortened form of a word or phrase, by any method. It may consist of a group of letters, or words taken from the full version of the word or phrase; for example, the word abbreviation can itself be represented by the abbreviation abbr., abbrv., or abbrev.; NPO, for nil (or nothing) per (by) os (mouth) is an abbreviated medical instruction. It may also consist of initials only, a mixture of initials and words, or words or letters representing words in another language (for example, e.g., i.e. or RSVP). Some types of abbreviations are acronyms (which are pronounceable), initialisms (using initials only), or grammatical contractions or crasis. An abbreviation is a shortening by any of these, or other, methods. Acronyms, initialisms, contractions and crasis share some semantic and phonetic functions, and all four are connected by the term "abbreviation" in loose parlance.name=harts A contraction is a reduction of size by the drawing together of the parts; a contraction of a word or words is made by omitting certain letters or syllables and bringing together the first and last letters or elements, such as "I'm" . Thus contractions are a subset of abbreviations. Abbreviations have a long history, created so that spelling out a whole word could be avoided. This might be done to save time and space, and also to provide secrecy. In both Greece and Rome the reduction of words to single letters was common alse The British Cyclopaedia of the Arts, Sciences, History, Geography, Literature, Natural History, and Biography, Wm. S. Orr and Company, 1838, p.5. [...]*

D.24   FairRanking_2022

Instruction
Given a description of a Wikiproject (title and keywords), retrieve relevant documents from Wikipedia that are in need of editing to improve the quality of the documents. Ensure that documents that are about, or somehow represent, certain protected characteristics receive a fair exposure.

Query
Title: Architecture
Keywords: ['museum', 'baroque', 'librarian', 'architecture', 'library', 'architect', 'cathedral', 'renaissance', 'decorative', 'regent', 'architectural', 'sculptor', 'catalogue', 'archive', 'monument', 'airport', 'skyscraper', 'heathrow', 'romanesque', 'island', 'cornish', 'arched', 'angeles', 'gothicmed', 'arch', 'designer', 'ornate', 'archcathedral', 'chancel', 'tidal', 'painter', 'masonry', 'basilica', 'sculpted', 'amphitheater', 'mount', 'spire', 'antiquity', 'sculpture', 'curatorial', 'boulevard', 'building', 'cottage', 'mansion', 'terrace', 'biographical', 'theatre', 'decorated', 'interlibrary', 'antique', 'exhibit', 'aquarium', 'monograph', 'city', 'historian', 'manor', 'harbour', 'exhibition', 'anthropology,urban,construction', 'heritage', 'pavilion', 'park']

Relevant Document
Wright Creek (Nanticoke River tributary)
Wright Creek is a long tributary to the Nanticoke River that rises in western Sussex County, Delaware. The creek straddles the Delaware state line for most of its course and is tidal for about half of its length.
See also
List of Delaware rivers
List of rivers of Maryland

D.25   NeuCLIR-Tech

Instruction
Articles describing the human reproductive system in biological terms from the perspective of a modern biologist are considered relevant. Articles describing the overall system such as a general description of the components or a lower level description such as specific cellular or molecular pathways involved in either the early development or adult stage maintenance of the systemo are relevant. Descriptions of mammalian reproductive system in general are considere somewhat valuable. Articles describing the reproductive system of a species outside of the class of mammalia are not relevant. Articles talking about human reproduction from other perspectives outside that of the biological sciences, such as from a historical or political perspective are not relevant.
Query
human reproductive system
Relevant Document
Research progress of SOX9 gene regulation of male mammalia reproductive activities
Sry-box contains protein 9 (SEX Determing Region Y-BOX 9, SOX9) gene is an important member of the sry-box containing protein (SRY-TYPE HMG BOX, SOX) gene family. Determing region of y Chromosome, sry) Another important gender decision gene after sry. Research in recent years shows that the SOX9 gene has played an important regulatory role in mammalian reproductive activities, and is closely different from gender differentiation, sperm and other reproductive activities. Related. This article mainly reviews the research progress of the mechanism of action during the embryo and post -lifting mammalian reproductive activities from the structural characteristics of the SOX9 gene. The mechanism and joint regulation mechanism with other genes provide a reference.
['mammal', 'Sry box contains protein 9 (SOX9)', 'Reproductive activity', 'Regulate']
Agriculture
Animal Husbandry and Veterinary Science

D.26   NeuCLIR_2022

Instruction
Find reports on whether the star Betelgeuse going supernova will present a threat to the Earth. The red-giant star went through some dramatic changes in brightness at the end of 2019 before returning to its ̈normal ̈magnitude in 2020. Do not collect information on supernovae or stellar evolution in general. Only information specifically detailing the dangers from radiation and dust that Betelgeuse exploding would present to the Earth are required.
Query
Danger of Betelgeuse going supernova
Relevant Document
The probability of a dying star exploding greater than the Sun   *Astronomers have recently announced that the star "El Joeza" or "Betelgeuse" of the constellation "Orion" is near the end of its life, and that its destruction will probably be accompanied by a major explosion. According to Isna and Cent, the second star in the constellation Orion is reportedly nearing the end of its life and will eventually end its life with a massive explosion called the supernova.*   *The most massive stars in the world end their lives with a massive explosion called Supernova.*   *A supernova occurs when a dying star begins to turn off.*   *Then it explodes suddenly and produces a lot of light, leaving behind a small neutron nucleus.*   *Pabat al-Jooza is a giant red star that is close to the end of its life, that is, at a time when the sun will reach it billions of years from now.* [...]

D.27   NeuCLIR_2023

Instruction

We are Looking for articles that contain a case of financial corruption or bribery at institutional level. Cases of bribery in Olympics and sports federations are relevant. Cases of individuals̆2019 bribery are excluded. Investigating an institution to find out if they are involved in corruption will not be relevant. Ethical problems or sexual abuse are not relevant.
Query
Corruption Bribery Sports Federation Olympics
Relevant Document
Global weightlifting recklessness at risk of elimination of Olympic / Doubles and Disputes in the World Federation
With the rise of disputes in the World Federation of Weightlifting, IOC ' s warning seems not to be taken seriously and now threatens the risk of elimination from the Olympics more than ever before.
According to ISNA, the head of the World Federation of Weightlifting has put the field at risk of elimination from the Olympics, and even Thomas Bach, the chairman of the International Olympic Committee, expressed concern about the situation of the field, and the current situation threatens the position of weightlifting in the 2024 Olympics.
* The beginning of the events in weightlifting of a documentary began.
A few months ago, a German network broadcast a documentary in which it unveiled the existence of corruption and systematic doping in the World Federation of Weightlifting.
At that time Tamash Ayan was the president.
This caused a lot of noise and led the Executive Board of the Federation to decide to suspend Ayan in order to conduct investigations on charges. [...]

D.28   ProductSearch_2023

Instruction
Given a search query, retrieve products that are relevant to the query.
Query
HAPY SHOP 80 Pcs Silver Alligator Hair
Relevant Document
Product Description HAPY SHOP 80 Pcs Silver Alligator Hair Clip Flat Top with Teeth 3 inch and 1.6 inch for Hair Care, Arts & Crafts Projects, Dry Hanging Clothing,2 Size 80 pack Silver Alligator Hair Clips in 2 size, big size can provides strength and ample capacity for salon hair spraying,small size can deal with the details. Read more Aligned with teeth style closure,so items they hold will not slip but not so tight that they can cause damage. Read more Size 40 x 3 inch hair clips 40 x 1.6 inch clips Material Made of nickel plated metal with smooth surface,can greatly handle thick or thin hair. Durable Durable for long term application. Read more Read more

D.29   ToT_2023

Instruction
You are an expert in movies, assisting someone in recalling the name of a movie that's on the tip of their tongue. For the given tip-of-the-tongue information requests, retrieve Wikipedia pages of potential movie titles that match the description provided.
Query
Title: Girl in a red dress enters a bizarre shop, where she gets chloroformed by the weird owner
This was a short movie I saw either on YT or Vimeo, not sure. Cannot find it now for the love of̆2026 A girl in a red dress enters a bizarre shop, to buy a present for her boyfriend (she says so), goes downstairs and inspects a shelf full of strange artifacts, when the shop owner chloroforms her and chains her. She wakes up and finds a way to cut herself loose, but she doesn't fight the owner, who chains her again and makes her get dressed in a pink ball dress. That's pretty much it ? Thanks.
Relevant Document

> *The Collector (1965 film)*
>
> *The Collector is a 1965 psychological horror film directed by William Wyler and starring Terence Stamp and Samantha Eggar. Its plot follows a young Englishman who stalks a beautiful art student before abducting and holding her captive in the basement of his rural farmhouse. It is based on the 1963 novel of the same title by John Fowles, with the screenplay adapted by Stanley Mann and John Kohn. Wyler turned down "The Sound of Music" to direct the film.*
> *Most of the film was shot on soundstages in Los Angeles, though exterior sequences were filmed on location in London, Forest Row in East Sussex and Westerham in Kent. Filming occurred in the late spring and early summer of 1964. Wyler's original cut ran approximately three hours but was trimmed to two hours at the insistence of the studio and producer.*
> *"The Collector" premiered at the Cannes Film Festival in May 1965, where both Stamp and Eggar won the awards for Best Actor and Best Actress, respectively. Upon its theatrical release in June 1965, the film received largely favourable reviews. Eggar won a Golden Globe Award for Best Actress in a Motion Picture – Drama for her performance, and was also nominated for the Academy Award for Best Actress, while Wyler received a nomination for Best Director. It was the last of Wyler's record 12 Academy Award nominations for Best Director.* [...]

D.30 ToT_2024

Instruction
You are an expert in movies, landmarks, and celebrities. You are helping someone recall the name of a movie, landmark, or celebrity that's on the tip of their tongue. For these tip-of-the-tongue information requests, retrieve Wikipedia pages of potential matches for the movie, landmark, or celebrity being described.
Query
Man trapped by a mother and her daughter . *A man is trapped in a flat by a mother and her daughter. I remember little else about this movie, except that it was foreign, possibly Italian, dubbed into English.*
Relevant Document
The Trap (1985 film) *The Trap (), also known as Collector's Item, Dead Fright and The Cage, is a 1985 erotic thriller directed by Giuseppe Patroni Griffi (his last theatrical film), and starring Tony Musante, Laura Antonelli, and Florinda Bolkan. Famed Italian horror director Lucio Fulci contributed to the screenplay (this film was done during the time Fulci was recovering from hepatitus, so he was unable to direct it).* *The film is based on a story called "L'Occhio", written by filmmaker Francesco Barilli. Barilli intended to make the film himself, but had trouble securing backing and balked at the producers wanting Shelley Winters in the lead role. So he sold the idea to Griffi and let him produce and direct it, retitling it "The Trap". Barilli said of the finished product "Lets' talk frankly here, that movie sucks..." and Fulci even used profanity alluding to his opinion of Griffi, who he felt stole his chance to direct the film.* *Plot.* *Michael Parker is a successful American businessman living in Italy with his girlfriend Hélène. However, when she leaves on vacation, Michael soon becomes involved in an affair with Marie, a woman he once had a one-night stand with. This affair proves more difficult for Michael, as Marie is not going to let him off the hook again so easily. To complicate matters worse, Marie's young daughter Jacqueline also finds herself attracted to Michael, resulting in an incestuous love triangle.*

D.31 ExcluIR

Instruction

Given a search query, retrieve relevant passages. Ensure not to retrieve excluded passages described in the query.
Query
Excluding Fatal Instinct, which is a 1993 American erotic thriller comedy film directed by Carl Reiner, in which other movies did the American actress Mary Sean Young portray characters?
Relevant Document
Sean Young *Mary Sean Young (born November 20, 1959) is an American actress. She is best known for her performances in the films "Blade Runner" (1982), "Dune" (1984), "No Way Out" (1987), "Wall Street" (1987), "Cousins" (1989) and "" (1994).*

D.32   FollowIR_Core17

Instruction
Find a study or article that addresses this question. *Persons living near radio towers and more recently persons using car (mobile) phones have been diagnosed with brain cancer. The argument rages regarding the direct association of one with the other. The incidence of cancer among the groups cited is considered, by some, to be higher than that found in the normal population. A relevant document includes any experiment with animals, statistical study, articles, news items which report on the incidence of brain cancer being higher/lower/same as those persons who live near a radio tower and those using car (mobile) phones as compared to those in the general population. Any mentions of leukemia is not relevant.*
Query
Evidence that radio waves from radio towers or car (mobile) phones affect brain cancer occurrence.
Relevant Document
Brain Tumors: Elusive, Varied and Not Always Deadly *elsewhere in the body – although, as in Kathleen's case, the primary cancer is sometimes not detected until after the metastatic brain tumor has been found. Lung, breast and colon cancers, as well as melanomas, often spread to the brain. There has been much speculation about the possible causes of brain cancers, and especially their apparent increase. About 5 percent are hereditary. Among suggested environmental factors are low-energy electromagnetic fields from objects like cellular phones, power lines and household appliances, although considerable research into the matter has yet to yield any definitive evidence of such a risk. To be sure, high-dose radiation delivered to the head, including therapy for brain tumors, can increase the risk of brain cancer. There is no link, however, to low-dose radiation delivered through diagnostic X-rays or workplace exposure to ionizing radiation.* [...]

D.33   FollowIR_News21

Instruction
Find authoritative sources to answer this health-related question. *China recently discovered a new coronavirus strain that is similar to MERS. Tell me about the symptoms of MERS, the incubation period for infection, and the lethality rate. Information on vaccines and treatments is relevant. Official sources of information on MERS also is relevant. Information on the origins of MERS is not relevant nor are the specific locations of previous outbreaks. Editorials are not relevant. If the document discusses a potential animal origin, please ignore the document.*
Query
What is the Middle East Respiratory Syndrome (MERS)?
Relevant Document
World digest: June 13, 2015

> *The World Health Organization says South Korea's outbreak of Middle East Respiratory Syndrome (MERS) was "large and complex" and more cases should be anticipated. SOUTH KOREA Emergency meeting on MERS outbreak The World Health Organization said Saturday that it would hold an emergency meeting on Tuesday to consider South Korea's outbreak of Middle East Respiratory Syndrome (MERS), which it described as "large and complex." The virus has infected 138 people in South Korea and killed 14 of them since it was first diagnosed May 20 in a businessman who had returned from a trip to the Middle East. The U.N. health agency said that more cases should be anticipated but that the disease was confined to hospitals, with no sign it was spreading in the community. There was also no indication that the MERS virus in South Korea had changed to become more transmissible, said Keiji Fukuda, the agency's assistant director general, at a news conference at the Health Ministry in Sejong, south of the capital, Seoul. The meeting Tuesday of the MERS emergency committee, which comprises international health experts from WHO member states, will provide technical updates on epidemiology as well as advice on future actions to be taken, the agency said. — Reuters IRAN Nuclear deal is "within reach" President Hassan Rouhani said a final nuclear deal is "within reach" as Iran and six world powers face a June 30 deadline for an agreement. The country has taken emergency measures to stop the spread of Middle East Respiratory Syndrome.* [...]

D.34   FollowIR_Robust04

Instruction
Find a document comparing vehicle crashworthiness relevant to this question.
A relevant document will contain information on the crashworthiness of a given vehicle or vehicles that can be used to draw a comparison with other vehicles. The document will have to describe/compare vehicles, not drivers. For instance, it should be expected that vehicles preferred by 16-25 year-olds would be involved in more crashes, because that age group is involved in more crashes. I would view number of fatalities per 100 crashes to be more revealing of a vehicle's crashworthiness than the number of crashes per 100,000 miles, for example. You should ignore any recall related articles, as that means they will be fixed, and exclude any anecdotal information of individual crashes.
Query
Which are the most crashworthy, and least crashworthy, passenger vehicles?
Relevant Document
FT 25 JUN 92 / Executive Cars (21): Two litres is quite enough - Unless status means more than a combination of performance and reasonable economy, there is every incentive to go for a modern, high-efficiency 2-litre engine. Stuart Marshall assesses the latest range of vehicles and finds an embarrassment of choice
How They Go
to sell in Britain for a similar figure with a 2-litre engine and automatic transmission when it arrives in early autumn. Safrane majors on ride quality and silence. The Mercedes-Benz 190E with 1.8-litre or 2-litre engines, now nearly 10 years old and due soon for replacement, is unmatched in its price class for status and sheer merit. Its bank-vault build quality and conservative styling pay off in high retained values. The pleasure of driving one is to be equated with the feeling one gets when upgraded to first from business class. The Peugeot 605 SLi 2.0, steel sprung but otherwise similar mechanically to a Citroen XM, is a roomy, quiet and undemanding drive. Rover's 820, restyled and improved within the past year, has build quality to match that of any European rival and is a driver's car which passengers enjoy equally. Volvo's five-cylinder, front wheel-driven 850GLT is an outstanding newcomer. It may look rather like a mid-1980s rear drive Volvo, but everything about it is original - except, that is, the styling. Performance is lively, the ride is good, the handling supremely safe and, should the worst happen, its crash survivability is probably unmatched. A feature of the past year has been the [...]

D.35   InstructIR

Instruction

I am a DIY enthusiast looking to upcycle a dresser. I aim to find creative ideas and sustainability-focused blogs that explain the various ways a dresser drawer can be repurposed or refurbished, thereby enhancing my project with unique and eco-friendly approaches. [SEP] what is a dresser drawer

Query
what is a dresser drawer

Relevant Document
A chest of drawers, alternatively known in certain regions as a bureau, stands as a versatile furniture item characterized by several parallel drawers that are placed in a stacked alignment vertically. Typically, this household item reaches around waist height and is often accompanied by a space to accommodate a reflective surface. Enthusiasts of the 'do it yourself' approach frequently direct their inventive energy toward transforming these drawers into distinctively eco-conscious home additions. Whether through imaginative restorations or novel adaptations, such elements of home decor can be elevated to function beyond their traditional, storage-centric roles.

D.36   NevIR

Instruction
Given a search query, retrieve relevant passages. Pay special attention to any negation in the query and the passages, as this can make seemingly relevant passages irrelevant.

Query
What occupied islands id the Portuguese colonize and develop?

Relevant Document
Before the arrival of the Europeans, the African slave trade, centuries old in Africa, was not yet the major feature of the coastal economy of Guinea. The expansion of trade occurs after the Portuguese reach this region in 1446, bringing great wealth to several local slave trading tribes. The Portuguese used slave labour to colonize and develop the Cape Verde islands where they founded settlements and grew cotton and indigo shortly after the Portuguese cleared out the remaining indigenous inhabitants. They then traded these goods, in the estuary of the Geba River, for black slaves captured by other black peoples in local African wars and raids.

D.37   IFEval

Instruction
*Retrieve responses to the given question. It is crucial that the responses strictly follow to the specified instruction: **In your response, the word constable should appear at least 2 times.**. Any response that does not fully comply with this instruction should be considered irrelevant.*

Query
What happened in 719, when the Tang dynasty was in power?

Relevant Document
In 719, during the Tang dynasty's rule, there were significant reforms implemented in the local administration. The role of constables was strengthened, and they were tasked with maintaining law and order in their respective districts. Constables were also provided with better training and resources to improve their effectiveness in policing the communities they served. These changes led to a more efficient and organized system of law enforcement, contributing to greater stability and security within the empire.

Irrelevant Document
In 719, during the Tang dynasty in China, a major rebellion known as the An Lushan Rebellion broke out. The rebellion was led by the general An Lushan, who rebelled against the Tang government, leading to a destructive civil war that lasted for several years. The rebellion caused widespread chaos and devastation throughout the empire, leading to a significant loss of life and a weakening of the Tang dynasty's power. It had a long-lasting impact on the stability of the dynasty and the social and economic structures of the time.

Instruction
Retrieve responses to the given question. It is crucial that the responses strictly follow to the specified instruction: **Entire output should be wrapped in JSON format. You can use markdown ticks such as "'.**. Any response that does not fully comply with this instruction should be considered irrelevant.

Query
What is the history of NYC prospect park?

Relevant Document

```
{
    "NYC Prospect Park": {
        "History": "Prospect Park is a public park in the borough of Brooklyn in New York
City. It was designed by Frederick Law Olmsted and Calvert Vaux, who also designed Central
Park. Construction of Prospect Park began in 1866 and was completed in 1873. The park was
designated a National Historic Landmark in 1962. It is known for its naturalistic design,
featuring large expanses of grass, woodlands, and bodies of water, as well as various
recreational facilities for visitors.",
        "Key Features": ["Long Meadow", "Prospect Park Lake", "Brooklyn Botanic Garden",
"Brooklyn Museum", "LeFrak Center at Lakeside"],
        "Events": ["Concerts", "Outdoor Movies", "Running Races", "Festivals"]
    }
}
```

Irrelevant Document
Prospect Park is a 526-acre public park in Brooklyn, New York City. It was designed by Frederick Law Olmsted and Calvert Vaux, who also designed Central Park in Manhattan. Prospect Park was created in the 19th century as part of the overall urban planning and development of Brooklyn.

The park was officially opened to the public in 1867, although construction continued for several more years. Prospect Park was intended to provide an oasis of nature and recreation for the residents of Brooklyn, as well as to serve as a counterpart to Manhattan's Central Park.

Over the years, Prospect Park has been a popular destination for both locals and tourists, offering a wide range of activities and amenities, including playgrounds, sports fields, a zoo, and an outdoor concert venue. The park is also home to various historical landmarks, such as the Boathouse and the Lefferts Historic House.

Today, Prospect Park remains one of the most beloved and iconic green spaces in New York City, attracting millions of visitors each year. |

Instruction
Retrieve responses to the given question. It is crucial that the responses strictly follow to the specified instruction: **In your entire response, refrain from the use of any commas.**. Any response that does not fully comply with this instruction should be considered irrelevant.

Query
I am planning a trip to Japan, and I would like thee to write an itinerary for my journey in a Shakespearean style.

Relevant Document

> *Day One: Upon the dawn of thine arrival in fair Nippon thou shalt traverse to the city of Tokyo flourishing with lights and marvels aplenty thine eyes shall feast upon the grand imperial gardens and thou shalt bask in the serenity of Meiji Shrine*
>
> *Day Two: Thenceforth to Kyoto go thou and witness the splendid temples of Kinkaku-ji and Fushimi Inari-taisha where the spirits of old still whisper unto the winds and the cherry blossoms doth sway in gentle rhythm*
>
> *Day Three: On the third morrow quench thy thirst for ancient tales in the city of Nara where sacred deer roam and the great Buddha in Todai-ji's embrace doth lie in wait*
>
> *Day Four: A journey to the highlands of Hakone undertake thou then bathe in the onsen where the waters warm doth soothe the weary soul and gaze upon Mount Fuji whose peak doth pierce the heavens*
>
> *Day Five: Return to the bustling heart of Tokyo and revel in the artistry of Akihabara's wonders and Shibuya's boundless sea of life ere thou takest leave and bid adieu to the land of the rising sun thus concluding thine enchanting sojourn*

Irrelevant Document

> *Day 1:*
> *Hark! Upon yon rising sun, alight in Tokyo, the city divine,*
> *Where towers reach thither, and lights doth entwine.*
> *Shall visit Asakusa, sacred and old,*
> *The Senso-ji Temple, with splendour to behold.*
>
> *Day 2:*
> *To Kyoto hie, by swift bullet train,*
> *Where ancient temples and gardens remain.*
> *The Fushimi Inari, with torii gates bright,*
> *A thousand fold crimson, they maketh a sight.*
>
> *Day 3:*
> *In Arashiyama, 'neath bamboo so tall,*
> *Stroll through groves where shadows doth fall.*
> *The monkeys at Iwatayama, lively and free,*
> *In their mountain abode, full of glee.*
>
> *Day 4:*
> *To Nara venture, and their sacred deer,*
> *Roam 'mid pagodas, Earth's wonders appear.*
> *Todaiji Temple, with Buddha so grand,*
> *In a park where quietude doth stand.*
>
> *Day 5:*
> *Osaka calls, metropolis with zeal,*
> *Where food and commerce together doth reel.*
> *Harbor to Dotonbori, with lights all a-glare,*
> *Takoyaki and sights beyond all compare.* [...]

D.38 SParC

Instruction

> *The candidate passages are a list of table segments from a database, where each table segment contains a table name, a header, and multiple rows. You will be given a list of queries, and your goal is to retrieve the table segment that contains the answer of the last query.*

Relevant Document

Track

TrackId	Name	AlbumId	MediaTypeId	GenreId	Composer	Milliseconds	Bytes	UnitPrice
13	Night Of The Long Knives	1	1	1	Angus Young, Malcolm Young, Brian Johnson	205688	6706347	0.99
14	Spellbound	1	1	1	Angus Young, Malcolm Young, Brian Johnson	270863	8817038	0.99
15	Go Down	4	1	1	AC/DC	331180	10847611	0.99
16	Dog Eat Dog	4	1	1	AC/DC	215196	7032162	0.99
17	Let There Be Rock	4	1	1	AC/DC	366654	12021261	0.99
18	Bad Boy Boogie	4	1	1	AC/DC	267728	8776140	0.99
19	Problem Child	4	1	1	AC/DC	325041	10617116	0.99
20	Overdose	4	1	1	AC/DC	369319	12066294	0.99
21	Hell Ain't A Bad Place To Be	4	1	1	AC/DC	254380	8331286	0.99
22	Whole Lotta Rosie	4	1	1	AC/DC	323761	10547154	0.99
23	Walk On Water	5	1	1	Steven Tyler, Joe Perry, Jack Blades, Tommy Shaw	295680	9719579	0.99
24	Love In An Elevator	5	1	1	Steven Tyler, Joe Perry	321828	10552051	0.99
25	Rag Doll	5	1	1	Steven Tyler, Joe Perry, Jim Vallance, Holly Knight	264698	8675345	0.99

D.39 Spider

Instruction

The candidate passages are a list of table segments from a database, where each table segment contains a table name, a header, and multiple rows. You will be given a query, and your goal is to retrieve the table segment that contains the answer of the query.

Query

Find the buildings which have rooms with capacity more than 50.

Relevant Document

section

course_id	sec_id	semester	year	building	room_number	time_slot_id
313	1	Fall	2010	Chandler	804	N
747	1	Spring	2004	Gates	314	K
443	1	Spring	2010	Whitman	434	O
893	1	Fall	2007	Fairchild	145	B
663	1	Spring	2005	Fairchild	145	D
457	1	Spring	2001	Saucon	844	D
445	1	Spring	2001	Alumni	547	J
559	1	Fall	2002	Lamberton	134	J
239	1	Fall	2006	Taylor	183	C
802	1	Spring	2003	Saucon	113	J
158	1	Fall	2008	Whitman	434	F
735	1	Spring	2003	Drown	757	D
237	1	Spring	2008	Power	717	D
338	1	Spring	2007	Fairchild	145	G
376	1	Fall	2006	Power	717	K
927	1	Fall	2002	Saucon	180	F
692	1	Spring	2010	Taylor	183	I
867	1	Fall	2006	Taylor	183	E
561	1	Fall	2006	Main	45	L
604	1	Spring	2009	Bronfman	700	N
974	1	Fall	2003	Polya	808	H
959	1	Fall	2006	Saucon	180	M

D.40 SParC-SQL

Instruction

You are a SQL simulator. The candidates are a list of table segments from a database, where each table segment contains a table name, a header, and multiple rows. You will be given a SQL statement, and your goal is to retrieve the table segments that contain the execution results of the SQL statement.

Query

SELECT * FROM invoices WHERE billing_city = "Chicago" AND billing_state = "IL";

invoices

id	customer_id	invoice_date	billing_address	billing_city	billing_state	billing_country	billing_postal_code	total
89	7	2008-01-18 00:00:00	Rotenturmstraße 4, 1010 Innere Stadt	Vienne		Austria	1010	18.86
90	21	2008-01-26 00:00:00	801 W 4th Street	Reno	NV	USA	89503	0.99
91	22	2008-02-08 00:00:00	120 S Orange Ave	Orlando	FL	USA	32801	1.98
92	24	2008-02-08 00:00:00	162 E Superior Street	Chicago	IL	USA	60611	1.98
93	26	2008-02-09 00:00:00	2211 W Berry Street	Fort Worth	TX	USA	76110	3.96
94	30	2008-02-10 00:00:00	230 Elgin Street	Ottawa	ON	Canada	K2P 1L7	5.94
95	36	2008-02-13 00:00:00	Tauentzienstraße 8	Berlin		Germany	10789	8.91
96	45	2008-02-18 00:00:00	Erzsébet krt. 58.	Budapest		Hungary	H-1073	21.86
97	59	2008-02-26 00:00:00	3,Raj Bhavan Road	Bangalore		India	560001	1.99
98	1	2008-03-10 00:00:00	Av. Brigadeiro Faria Lima, 2170	São José dos Campos	SP	Brazil	12227-000	3.98
99	3	2008-03-10 00:00:00	1498 rue Bélanger	Montréal	QC	Canada	H2G 1A7	3.98

D.41 Spider-SQL

Query

SELECT DISTINCT T1.Address FROM CUSTOMER AS T1 JOIN INVOICE AS T2 ON T1.CustomerId = T2.CustomerId WHERE T1.country = "Germany"

Customer

CustomerId	FirstName	LastName	Company	Address	City	State	Country	PostalCode	Phone	Fax	Email	SupportRepId
1	Luís	Gonçalves	Embraer - Empresa Brasileira de Aeronáutica S.A.	Av. Brigadeiro Faria Lima, 2170	São José dos Campos	SP	Brazil	12227-000	+55 (12) 3923-5555	+55 (12) 3923-5566	luisg@embraer.com.br	3
2	Leonie	Köhler		Theodor-Heuss-Straße 34	Stuttgart		Germany	70174	+49 0711 2842222		leonekohler@surfeu.de	5
3	François	Tremblay		1498 rue Bélanger	Montréal	QC	Canada	H2G 1A7	+1 (514) 721-4711		ftremblay@gmail.com	3
4	Bjørn	Hansen		Ullevålsveien 14	Oslo		Norway	0171	+47 22 44 22 22		bjorn.hansen@yahoo.no	4
5	František	Wichterlová	JetBrains s.r.o.	Klanova 9/506	Prague		Czech Republic	14700	+420 2 4172 5555	+420 2 4172 5555	frantisekw@jetbrains.com	4
6	Helena	Holý		Rilská 3174/6	Prague		Czech Republic	14300	+420 2 4177 0449		hholy@gmail.com	5
7	Astrid	Gruber		Rotenturmstraße 4, 1010 Innere Stadt	Vienne		Austria	1010	+43 01 5134505		astrid.gruber@apple.at	5
8	Daan	Peeters		Grétrystraat 63	Brussels		Belgium	1000	+32 02 219 03 03		daan_peeters@apple.be	4

E Legal

E.1 AILA2019-Case

Query

The appellant on February 9, 1961 was appointed as an Officer in Grade III in the respondent Bank (for short 'the Bank'). He was promoted on April 1, 1968 to the Grade officer in the Foreign Exchange Department in the Head Office of the Bank. Sometime in 1964, MCH Society (for short 'the Society') was formed of which the appellant was one of the chief promoters and thereafter its Secretary. The object of the Society was to construct residential premises for the employees of the Bank and its other members. It appears that the complaint was received in respect of the affairs of the Society relating to misappropriation of the funds of the Society and consequently, in exercise of the powers under Section S of Act A1, the Registrar on April 23, 1969 instituted an inquiry thereof. P1 was appointed the Registrar's nominee who on October 4, 1969; submitted the report holding the appellant and two other office bearers of the Society negligent in dealing with the funds of the Society causing a loss to the tune of Rs. 3,59,000/-. The Registrar on October 21, 1969, passed an order appointing an officer under Section S of A1 to assess the loss caused to the Society. However, the Government by its order dated November 29, 1969 annulled the Registrar's order dated April 23, 1969 and October 21, 1969 and directed a fresh inquiry into the affairs of the Society. On December 17, 1969, the Bank issued show cause notice to the appellant to explain within fifteen days his alleged negligent conduct in dealing with the affairs of the Society as revealed in the report dated 4th October, 1969. In the meantime, P2 came to be appointed by the Registrar vide his order dated 26th July, 1969, to make inquiries under Section S of A1. Petitioner by his reply dated 18/22th January, 1970 submitted his explanation [...]

Relevant Document

Tukaram Dnyaneshwar Patil v State of Maharashtra and others
Supreme Court of India

13 March 2015
Cr.A. No. 442 of 2015 (S.L.P.(Cr.) No. 1506 of 2012), Cr.A. No. 443 of 2015 (S.L.P.(Cr.) No. 1505 of 2012)
The Judgment was delivered by : C. Nagappan, J.
1. Leave granted in both the appeals.
2. Both the appeals are preferred against the judgment dated 14.7.2011 passed by the High Court of Judicature at Bombay, Nagpur Bench at Nagpur in Criminal Appeal No.284 of 1998, whereby the High Court partly allowed the said Criminal Appeal filed by respondents 2 to 4 herein/accused 1 to 3 and thereby set aside their conviction and sentence u/s. 302 read with S. 34 IPC and instead convicted them for offence u/s. 304 Part-II read with S. 34 IPC and sentenced them to imprisonment for period already undergone and directed them to pay jointly and severally a sum of Rs.1,05,000/- to PW1 Narayan Patil and family members of the deceased as compensation in default to undergo rigorous imprisonment for two years and the High Court maintained the conviction of the accused persons u/s. 324 read with S. 34 IPC but reduced the sentence to the period already undergone. Aggrieved by the same the State has preferred Criminal Appeal No. 443 of 2015 (@ SLP(Crl.) No.1505 of 2012. The complainant Tukaram Dnyaneshwar Patil also preferred appeal in Criminal Appeal No. 442 of 2015 (@ SLP(Crl.) No.1506 of 2012. Since both the appeals have been preferred against the same judgment, they are heard together and a common judgment is rendered. [...]

E.2 AILA2019-Statutes

Instruction

For a given situation that has led to filing a case in an Indian court of law, identify and retrieve the most relevant statutes (sections of Acts) from Indian law.

Query

The appellant on February 9, 1961 was appointed as an Officer in Grade III in the respondent Bank (for short 'the Bank'). He was promoted on April 1, 1968 to the Grade officer in the Foreign Exchange Department in the Head Office of the Bank. Sometime in 1964, MCH Society (for short 'the Society') was formed of which the appellant was one of the chief promoters and thereafter its Secretary. The object of the Society was to construct residential premises for the employees of the Bank and its other members. It appears that the complaint was received in respect of the affairs of the Society relating to misappropriation of the funds of the Society and consequently, in exercise of the powers under Section S of Act A1, the Registrar on April 23, 1969 instituted an inquiry thereof. P1 was appointed the Registrar's nominee who on October 4, 1969; submitted the report holding the appellant and two other office bearers of the Society negligent in dealing with the funds of the Society causing a loss to the tune of Rs. 3,59,000/-. The Registrar on October 21, 1969, passed an order appointing an officer under Section S of A1 to assess the loss caused to the Society. However, the Government by its order dated November 29, 1969 annulled the Registrar's order dated April 23, 1969 and October 21, 1969 and directed a fresh inquiry into the affairs of the Society. On December 17, 1969, the Bank issued show cause notice to the appellant to explain within fifteen days his alleged negligent conduct in dealing with the affairs of the Society as revealed in the report dated [...]
Relevant Document
Title: *Criminal breach of trust by public servant, or by banker, merchant or agent*   ***Desc:*** *Whoever, being in any manner entrusted with property, or with any dominion over property in his capacity of a public servant or in the way of his business as a banker, merchant, factor, broker, attorney or agent, commits criminal breach of trust in respect of that property, shall be punished with 1 [imprisonment for life], or with imprisonment of either description for a term which may extend to ten years, and shall also be liable to fine. Substituted by Act 26 of 1955, section 117 and Schedule, for "transportation for life" (w.e.f. 1-1-1956).*

E.3 BSARD

Instruction
Given a legal question, retrieve the relevant statutory articles from Belgian law.
Query
Quels sont les critères communaux d'insalubrité ?
Relevant Document
Law type: regional   *Code: Code Wallon de l'Habitation Durable*   *Chapter: Des critères applicables à l'habitation.*   *Section: Du respect des critères.*   *Article: Le bourgmestre statue sur le rapport d'enquête dans les trois mois de sa réception, si l'enquête a été effectuée par un fonctionnaire ou un agent de l'administration, ou de sa réalisation, si l'enquête a été effectuée par un agent communal. Sauf urgence impérieuse, le bourgmestre est tenu d'entendre, lorsqu'ils ont été identifiés et s'ils le souhaitent, tout titulaire de droits réels sur l'habitation concernée par le rapport d'enquête et, lorsque celle-ci est donnée en location, le bailleur de l'habitation, ainsi que l'occupant éventuel. La procédure d'audition est fixée par le Gouvernement. Sans préjudice de l'article 201, le bourgmestre prend des mesures conservatoires, ordonne des travaux de réhabilitation, de restructuration, de démolition ou prononce l'interdiction d'occuper. S'il prononce l'interdiction d'occuper en vertu du présent Code ou de l'article 135, § 2, de la nouvelle loi communale et procède à l'expulsion de l'occupant, une proposition de relogement doit être offerte à ce dernier, lorsque le délai entre la décision d'interdiction d'occupation et la date prévue de l'expulsion ne permet pas aux occupants de retrouver une habitation, au plus tard au moment de l'expulsion, [...]*

E.4 BillSum

Instruction
Given summary excerpts, retrieve the full text of the corresponding U.S. Congressional and California State bills.

Query
Amends the Wild and Scenic Rivers Act to designate a specified segment of the Hanford Reach

Relevant Document
FINDINGS. *Congress finds that–* *(1) the 50-mile Handford Reach is the last free-flowing nontidal segment of the Columbia River in the United States and has been preserved in a relatively natural condition because of its location within the Hanford Nuclear Reservation;* *(2) in 1988, Congress, in Public Law 100-605 (102 Stat. 3043), called for an analysis of protection alternatives for the Hanford Reach and a report to Congress by the Secretary of the Interior, who concluded in the Hanford Reach Final Environmental Impact Statement dated June 1994 that the Hanford Reach should be designated as a recreational river under the Wild and Scenic Rivers Act;* *(3) the Hanford Reach is a vital migration corridor for anadromous fish and contains some of the most productive spawning areas in the Northwest United States, producing an estimated 80 percent of the Columbia Basin's fall chinook salmon and healthy runs of naturally spawning steelhead trout, sturgeon, and other highly valued fish species;* *(4) the Hanford Reach provides important habitat for wintering and migrating waterfowl, bald eagles, deer, elk, and a diversity of other wildlife, including numerous Federal and State-listed threatened and endangered plant and animal species, some of which are found nowhere else;* [...]

E.5   CUAD

Instruction
In the legal contract review process, the task is to highlight important portions of the contract based on a given instruction. You need to retrieve passages from the contract that contain the relevant sections, as specified by the query.

Query
Highlight the parts (if any) of this contract related to "Document Name" that should be reviewed by a lawyer. Details: The name of the contract

Relevant Document
Goosehead Insurance Agency, LLC Franchisor Franchisee Entity *By: By:* *Name: Name:* *Title: Title:* *Effective Date:* *Address for Notices: Address for Notices:* *1500 Solana Blvd., Suite 4500 Westlake, Texas 76262 Fax: Fax: Attn: Attn:* *Page 60 of 80* *GOOSEHEAD INSURANCE AGENCY, LLC FRANCHISE AGREEMENT EXHIBIT B GUARANTEE, INDEMNI-FICATION, AND ACKNOWLEDGMENT* *In order to induce Goosehead Insurance Agency, LLC ("Franchisor") to sign the Goosehead Insurance Franchise Agreement between Franchisor and ("Franchisee"), dated , 201 (the "Agreement"), each of the undersigned parties, jointly and severally, hereby unconditionally guarantee to Franchisor and its successors and assigns that all of Franchisee's obligations (monetary and otherwise) under the Agreement as well as any other contract between Franchisee and Franchisor (and/or Franchisor's affiliates) will be punctually paid and performed.*

E.6   GerDaLIR

Instruction

Given a passage from a legal case, retrieve the relevant case documents. Relevant cases are those that are referenced as prior cases within the query case.
Query
Soweit der Antragsteller meint, der Antragsgegner hätte sich nicht an ihn als Eigentümer und Vermieter, sondern an die Mieterin bzw. Untermieterin halten müssen, betrifft dies die sog. Störerauswahl, die bereits im bestandskräftigen Bescheid vom [DATE] erfolgt ist. Anzumerken ist, dass eine Inanspruchnahme des Antragstellers als Eigentümer und Vermieter nicht nur nach dem Inhalt der Unterlassungspflicht, sondern auch deshalb sachgerecht ist, weil die Mieter bzw. Untermieter der betroffenen Räume der zuständigen Behörde nicht bekannt waren. Das Vorgehen gegen den Vermieter fördert dann eine effektive Gefahrenabwehr.
Relevant Document
Tenor Die Beschwerde des Antragstellers gegen den Beschluss des Verwaltungsgerichts Oldenburg 0. Kammer vom [DATE] wird zurückgewiesen. Der Antragsteller trägt die Kosten des Beschwerdeverfahrens. Der Wert des Streitgegenstandes wird für das Beschwerdeverfahren auf 0, EUR festgesetzt. Gründe I. *Der Antragsteller wendet sich gegen eine Verfügung des Antragsgegners, die ihm die Vermietung von baurechtlich nicht genehmigten Dachgeschosszimmern an ausländische Arbeitnehmer untersagt.* *Der Antragsteller ist Eigentümer des mit einer ehemaligen landwirtschaftlichen Hofstelle bebauten Grundstücks C. 0 in A-Stadt-D. . Teil der im Außenbereich liegenden Hofstelle ist ein ehemaliges Betriebsleiterwohnhaus, dessen Erdgeschoss und erstes Stockwerk als Unterkünfte für ausländische Arbeitnehmer bzw. Asylbewerber vermietet sind; für diese Nutzung liegt seit kurzem eine Baugenehmigung vor. Das Dachgeschoss dient ausweislich der Baugenehmigung vom [DATE] lediglich als nicht ausgebauter Bodenraum. Eine von dem Antragsteller beantragte Umnutzung in Arbeitnehmerunterkünfte lehnte der Antragsgegner mit Bescheid vom [DATE], dessen Bestandskraft zwischen den Beteiligten in Streit steht, aufgrund planungsrechtlicher Unzulässigkeit ab; zugleich ordnete er den Rückbau an.* *Bei einer Ortsbesichtigung im [DATE] stellte der Antragsgegner erstmals fest, dass der Antragsteller das Dachgeschoss auf rund 0 qm ausgebaut und dort sieben Schlafräume mit 0 Betten sowie zwei Bäder eingerichtet hatte. Die Räume waren zum damaligen Zeitpunkt ebenso wie die Räume im Erd- und ersten Obergeschoss mit weiteren 0 Betten an Arbeitnehmer aus dem ehemaligen Jugoslawien vermietet. Unter dem [DATE] hörte der Antragsgegner den Antragsteller zu einer beabsichtigten Nutzungsuntersagung an. Der Antragsteller bat daraufhin um nachträgliche Genehmigung der Umnutzung; am [DATE] . [...]*

E.7   LeCaRDv2

Instruction
Given a query case, retrieve documents of relevant prior criminal cases. Specifically, the relevant definitions consider the following three aspects: *(i) Characterization Relevance, two cases are defined as relevant in Characterization if the similarity between their critical factors is high;* *(ii) Penalty Relevance, two cases are defined as relevant in Penalty if the similarity between their circumstances of sentencing is high;* *(iii) Procedure Relevance, two cases are defined as relevant in Procedure if the similarity between their procedural controversy is high.* *The Overall Relevance should take the characterization, penalty, and procedure relevance as a whole into consideration.*
Query

Chen Xiang extortion of criminal judgment of the first instance of the first instance of the Criminal Judgment of the People's Court of Lichuan City, Hubei Province (2019) Hubei 2802 Criminal Eatement No. 152: Lichuan City People's Procuratorate accused the defendant Chen Kin in the prosecution of Eli Inspection [2019] No. 112Crime was prosecuted to the court on April 19, 2019.The court set up a collegial panel in accordance with the law in accordance with the same day. It applied for ordinary procedures and tried publicly.Lichuan City People's Procuratorate assigned prosecutors Hu Jialiu to appear in court to support public prosecution. The defendant Chen Qin and his defense humanities Yuefang went to court to participate in the lawsuit.The case has now been tried to end Lichuan City People's Procuratorate accused: At 12 o'clock on October 7, 2013, the victims Tang, Huang, Rao, and Ma played gambling games in the one -lane game room in Danguiyuan, the city, this timeThe staff of the game room Zhang Mou 1. Li believes that the four people use the game room to send score activities vulnerabilities to pick up the money and money of the game room. Zhang Mou 1 told the game room owner Tan Mou 1, and then asked the defendant Chen Qin to deal with thisthing.Chen Qin invited Fang Mou and Zhang Mou 3 (all handled separately), and led Zhang Mou, Tan Tan, Zhang, Zhu, Xie (all cases) and others forcibly using the car to use the car to bring Tang and Huang Moumou and Huang Moumou.Rao and Ma Mou brought to the Huangni slope reservoir in Tuanbao Town, the city.During this period, because of Ma's son -in -law and an acquaintance of Chen Qin, Chen Qin and others took Tang, Huang, and Rao to get out of the car.Otherwise, it will be chopped.The three of them gave each person a 2,000 yuan for each person based on fear.Later, Chen Kin and others brought four people back to Lichuan City. In the process, Chen Pin asked the person to return Ma to his family.Chen Pinhou was released, and Rao was rescued because his wife had noisy in the process of delivering the property near the viewing hotel.A threatening and beating, at 21:00 on October 7, 2013, [...]
Relevant Document
Zhu Lin's Criminal Criminal Judgment of the First Trial of the First Trial of the First Trial of the Jinjiang People's Court of Jinjiang City, Fujian Province (2019) Fujian 0582 Criminal Eatement No. 1320: Jinjiang People's Procuratorate with the Jinjiang Prosecutor's Criminal Prosecutor [2019] No. 1012 accused the defendant Zhu Lin offending the crime of extortion of extortion.   *On May 15, 2019, a prosecution was filed with this court.*   *The court applied to a simple procedure in accordance with the law, implemented a exclusive trial, and opened the trial publicly.*   *Jinjiang People's Procuratorate assigned prosecutors Wang Yiyu to appear in court to support public prosecution. The defendant Zhu Lin went to court to participate in the lawsuit.*   *The allegations of Jinjiang City People's Procuratorate have been tried: from November 6, 2018 to November 27, 2018, the defendant Zhu Lin went to Jinjiang City to dismantle the rearview lens of the car with his bare hands, hiding the lens near the vehicle, and and and and and also.*   *Leave a small note with "WeChat: ×××, Find Mirror" in the car. If the owner contacts it, the owner is required to pay the property to him.*   *The specific facts are as follows: 1. In the early morning of November 6, 2018, the defendant Zhu Lin went to the 13th of Haisi Jingcheng, Jinjiang City, and the license plate number of the victim Chen Mou 1 was the public number of Fujian C ××××.*   *The car rearview lens was removed and a note was left in the car to implement extortion.*   *The victim recovered the hidden rearview lens near the vehicle. [...]*

E.8 LegalQuAD

Instruction
Given a questions, retrieve relevant German legal documents.
Query
Wie wurde Ŏ0fcber die Revision im Urteil des Landesgerichts Berlin-Brandenburg vom 2. April 2013 entschieden?
Relevant Document
Die Revision des Klägers gegen das Urteil des Landesarbeitsgerichts Berlin-Brandenburg vom 2. April 2013 - 11 Sa 2346/12 - wird zurückgewiesen.

E.9 REGIR-EU2UK

Instruction
Given a query document related to an EU directive, retrieve UK legislation documents that have transposition relationships with the query document.
Query
COMMISSION DIRECTIVE 2010/39/EU of 22 June 2010 amending Annex I to Council Directive 91/414/EEC as regards the specific provisions relating to the active substances clofentezine, diflubenzuron, lenacil, oxadiazon, picloram and pyriproxyfen (Text with EEA relevance) *Having regard to the Treaty on the Functioning of the European Union,* *Having regard to Council Directive 91/414/EEC of 15 July 1991 concerning the placing of plant protection products on the market (1), and in particular Article 6(1) thereof,* *Whereas:* *(1) The active substances clofentezine, diflubenzuron, lenacil, oxadiazon, picloram and pyriproxyfen were included in Annex I to Directive 91/414/EEC by Commission Directive 2008/69/EC (2) in accordance with the procedure provided for in Article 11b of Commission Regulation (EC) No 1490/2002 (3).* *(2) In accordance with Article 12a of Regulation (EC) No 1490/2002 EFSA presented to the Commission the conclusions on the peer review for clofentezine (4) on 4 June 2009, for diflubenzuron (5) on 16 July 2009, for lenacil (6) on 25 September 2009, for oxadiazon (7) and picloram (8) on 26 November 2009 and for pyriproxyfen (9) on 21 July 2009. These conclusions were reviewed by the Member States and the Commission within the Standing Committee on the Food Chain and Animal Health and finalised on 11 May 2010 in the format of the Commission review reports for clofentezine, diflubenzuron, lenacil, oxadiazon, picloram and pyriproxyfen.* [...]
Relevant Document
The Plant Protection Products (Amendment) (No.3) Regulations 2007 *Title and commencement* *1 These Regulations may be cited as the Plant Protection Products (Amendment) (No.3) Regulations 2007 and come into force on 18th September 2007.* *Amendments* *2 In the Plant Protection Products Regulations 2005 , in paragraph (1) of regulation 2 (interpretation), for the definition of "the Directive"substitute —* *"the Directive"means Council Directive 91/414/EEC concerning the placing of plant protection products on the market, as amended from time to time;* [...] *20th August 2007*

E.10 REGIR-UK2EU

Instruction
Given a query UK legislation document, retrieve EU directive documents that have transposition relationships with the query document.
Query

Health and Safety at Work etc. Act 1974
PART I
Health, Safety and Welfare in connection with Work, and Control of Dangerous Substances and Certain Emissions into the Atmosphere
Preliminary
The provisions of this Part shall have effect with a view to —
1. securing the health, safety and welfare of persons at work;
2. protecting persons other than persons at work against risks to health or safety arising out of or in connection with the activities of persons at work;
3. controlling the keeping and use of explosive or highly flammable or otherwise dangerous substances, and generally preventing the unlawful acquisition, possession and use of such substances; and
4. controlling the emission into the atmosphere of noxious or offensive substances from premises of any class prescribed for the purposes of this paragraph. [...]

Relevant Document
COUNCIL DIRECTIVE 2011/70/EURATOM of 19 July 2011 establishing a Community framework for the responsible and safe management of spent fuel and radioactive waste
Having regard to the Treaty establishing the European Atomic Energy Community, and in particular Articles 31 and 32 thereof,
Having regard to the proposal from the European Commission, drawn up after obtaining the opinion of a group of persons appointed by the Scientific and Technical Committee from among scientific experts in the Member States,
Having regard to the opinion of the European Economic and Social Committee (1),
Having regard to the opinion of the European Parliament (2),
Whereas:
(1) Article 2(b) of the Treaty establishing the European Atomic Energy Community ('Euratom Treaty') provides for the establishment of uniform safety standards to protect the health of workers and of the general public.
(2) Article 30 of the Euratom Treaty provides for the establishment of basic standards for the protection of the health of workers and the general public against the dangers arising from ionising radiations. [...]

E.11   TREC-Legal_2011

Instruction
Given a request for production in civil litigation, retrieve all documents or communications from database that are responsive to this request, while minimizing the number of unresponsive documents that are retrieved. The database consists of email messages captured by the Federal Energy Regulatory Commission ("FERC") from Enron, in the course of its investigation of Enron.
Query
All documents or communications that describe, discuss, refer to, report on, or relate to the design, development, operation, or marketing of enrononline, or any other online service offered, provided, or used by the Company (or any of its subsidiaries, predecessors, or successors-in-interest), for the purchase, sale, trading, or exchange of financial or other instruments or products, including but not limited to, derivative instruments, commodities, futures, and swaps.
Relevant Document

F   Medical

F.1   NFCorpus

Instruction
Given a question, retrieve relevant documents that best answer the question.
Query
Do Cholesterol Statin Drugs Cause Breast Cancer?
Relevant Document
Elevated Levels of Cholesterol-Rich Lipid Rafts in Cancer Cells Are Correlated with Apoptosis Sensitivity Induced by Cholesterol-Depleting Agents Lipid rafts/caveolae are membrane platforms for signaling molecules that regulate various cellular functions, including cell survival. To better understand the role of rafts in tumor progression and therapeutics, we investigated the effect of raft disruption on cell viability and compared raft levels in human cancer cell lines versus their normal counterparts. Here, we report that cholesterol depletion using methyl-β cyclodextrin caused anoikis-like apoptosis, which in A431 cells involved decreased raft levels, Bcl-xL down-regulation, caspase-3 activation, and Akt inactivation regardless of epidermal growth factor receptor activation. Cholesterol repletion replenished rafts on the cell surface and restored Akt activation and cell viability. Moreover, the breast cancer and the prostate cancer cell lines contained more lipid rafts and were more sensitive to cholesterol depletion-induced cell death than their normal counterparts. These results indicate that cancer cells contain increased levels of rafts and suggest a potential use of raft-modulating agents as anti-cancer drugs.

F.2   Trec-Covid

Instruction
Given a query, retrieve documents that answer the query.
Query
what is the origin of COVID-19
Relevant Document

Monophyletic Relationship between Severe Acute Respiratory Syndrome Coronavirus and Group 2 Coronaviruses
Although primary genomic analysis has revealed that severe acute respiratory syndrome coronavirus (SARS CoV) is a new type of coronavirus, the different protein trees published in previous reports have provided no conclusive evidence indicating the phylogenetic position of SARS CoV. To clarify the phylogenetic relationship between SARS CoV and other coronaviruses, we compiled a large data set composed of 7 concatenated protein sequences and performed comprehensive analyses, using the maximum-likelihood, Bayesian-inference, and maximum-parsimony methods. All resulting phylogenetic trees displayed an identical topology and supported the hypothesis that the relationship between SARS CoV and group 2 CoVs is monophyletic. Relationships among all major groups were well resolved and were supported by all statistical analyses.

F.3   Monant

Instruction
Given a medical claim, retrieve articles that either support or contradict the claim.
Query
Rife machines can cure over 5,000 diseases including all cancers, infections and more.
Relevant Document
No evidence Rife machines can cure all cancers - Full Fact

F.4   CliniDS_2014

Instruction
Given a medical case record that consists of a short summary and a full description, retrieve biomedical articles from PubMed Central that provide useful information for answering the following clinical question: What is the patient's diagnosis?
Query
Case Report
Summary: 58-year-old woman with hypertension and obesity presents with exercise-related episodic chest pain radiating to the back.
Description: A 58-year-old African-American woman presents to the ER with episodic pressing/burning anterior chest pain that began two days earlier for the first time in her life. The pain started while she was walking, radiates to the back, and is accompanied by nausea, diaphoresis and mild dyspnea, but is not increased on inspiration. The latest episode of pain ended half an hour prior to her arrival. She is known to have hypertension and obesity. She denies smoking, diabetes, hypercholesterolemia, or a family history of heart disease. She currently takes no medications. Physical examination is normal. The EKG shows nonspecific changes.
Relevant Document
Abstract
The chest pain unit (CPU) provides rapid diagnostic assessment for patients with acute, undifferentiated chest pain, using a combination of electrocardiographic (ECG) recording, biochemical markers and provocative cardiac testing. We aimed to identify which elements of a CPU protocol were most diagnostically and prognostically useful.
The Northern General Hospital CPU uses 2–6 hours of serial ECG / ST segment monitoring, CK-MB(mass) on arrival and at least two hours later, troponin T at least six hours after worst pain and exercise treadmill testing. Data were prospectively collected over an eighteen-month period from patients managed on the CPU. Patients discharged after CPU assessment were invited to attend a follow-up appointment 72 hours later for ECG and troponin T measurement. Hospital records of all patients were reviewed to identify adverse cardiac events over the subsequent six months. Diagnostic accuracy of each test was estimated by calculating sensitivity and specificity for: 1) acute coronary syndrome (ACS) with clinical myocardial infarction and 2) ACS with myocyte necrosis. Prognostic value was estimated by calculating the relative risk of an adverse cardiac event following a positive result. [...]

F.5   CliniDS_2015

Instruction
Given a medical case record that consists of a short summary and a full description, retrieve biomedical articles from PubMed Central that provide useful information for answering the following clinical question: How should the patient be treated?

Query
Case Report Summary: A 32-year-old male presents with diarrhea and foul-smelling stools. Stool smear reveals protozoan parasites. Description: A 32-year-old male presents to your office complaining of diarrhea, abdominal cramping and flatulence. Stools are greasy and foul-smelling. He also has loss of appetite and malaise. He recently returned home from a hiking trip in the mountains where he drank water from natural sources. An iodine-stained stool smear revealed ellipsoidal cysts with smooth, well-defined walls and 2+ nuclei.

Relevant Document
Abstract Giardia lamblia (intestinalis) and Cryptosporidium parvum are the two most important intestinal parasites infecting North Americans but there is a paucity of active population-based surveillance data from Canada. This study determined the incidence of and demographic risk factors for developing Giardia sp. and Cryptosporidium sp. infections in a general Canadian population. Population-based laboratory surveillance was conducted among all residents of the Calgary Health Region (CHR; population $\approx$ 1 million) during May 1, 1999 and April 30, 2002. Giardia sp. infection occurred at a rate of 19.6 per 100,000 populations per year. Although the yearly incidence was stable, a significant seasonal variation was observed with a peak in late summer to early fall. Males were at higher risk for development of this infection as compared to females (21.2 vs. 17.9 per 100,000/yr; relative risk (RR) 1.19; 95% confidence interval (CI), 1.00–1.40, $p = 0.047$), and there was a significant decrease in risk associated with an increasing age. Cryptosporidium sp. infection occurred at an overall rate of 6.0 per 100,000 populations per year although a large outbreak of Cryptosporidium sp. infections occurred in the second half of the summer of 2001. During August and September of 2001, the incidence of cryptosporidiosis was 55.1 per 100,000 per year as compared to 3.1 per 100,000 per year for the remainder of the surveillance period ($p < 0.0001$). Cryptosporidiosis was largely a disease of children with an incidence of 17.8 per 100,000 per year occurring among those aged < 20 years of age compared to 1.25 per 100,000 per year for adults ≥ 20 years of age (RR 14.19; 95% CI, 9.77–21.11; $p < 0.0001$). [...]

F.6   CliniDS_2016

Instruction
Given an electronic health record of a patient, retrieve biomedical articles from PubMed Central that provide useful information for answering the following clinical question: What is the best intervention for diagnosing this patient's condition?

Query
Electronic Health Record Mr. [**Name13 (STitle) 5827**] is an 80yo M with dementia, CAD s/p CABG in [**3420**] (LIMA-LAD, SVG to OM2, SVG to RPDA), then s/p CABG redo in [**3426**], then s/p 2 caths this year with patent LIMA, totally occluded SVG to RPDA, SVG to OM2, s/p BMS to LCX on [**1-26**] who presented to [**Hospital3 53**] Hospital with increasing chest pain and nausea over the past few days. . Per report, patient has presented several times since last cathed for recurrent angina. Admitted to [**Hospital3 **] on [**3436-4-2**] with recurrent chest pain. Ruled out for MI. Last episode of chest pressure was the morning of transfer, associated with dry heaves and belching relieved with morphine. Pt was continued on ASA, Plavix, Statin, BBker, Imdur and placed on Heparin gtt. Cath last [**Month (only) **] here at [**Hospital1 5**] showed a patent BMS in LCX and no new lesions. According to the

family he usually has angina once every day or two, but for the past 2 weeks he has been having angina with any minimal exertion (eg putting on his shirt), and waking him several times per night.

Relevant Document

Abstract

Spinal cord electrical stimulation (SCS) has shown to be a treatment option for patients suffering from angina pectoris CCS III-IV although being on optimal medication and not suitable for conventional treatment strategies, e.g. CABG or PTCA. Although many studies demonstrated a clear symptomatic relief under SCS therapy, there are only a few short-term studies that investigated alterations in cardiac ischemia. Therefore doubts remain whether SCS has a direct effect on myocardial perfusion.

A prospective study to investigate the short- and long-term effect of spinal cord stimulation (SCS) on myocardial ischemia in patients with refractory angina pectoris and coronary multivessel disease was designed. Myocardial ischemia was measured by MIBI-SPECT scintigraphy 3 months and 12 months after the beginning of neurostim-ulation. To further examine the relation between cardiac perfusion and functional status of the patients we measured exercise capacity (bicycle ergometry and 6-minute walk test), symptoms and quality of life (Seattle Angina Questionnaire [SAQ]), as well.

31 patients (65 ± 11 SEM years; 25 male, 6 female) were included into the study. The average consumption of short acting nitrates (SAN) decreased rapidly from 12 ± 1.6 times to 3 ± 1 times per week. The walking distance and the maximum workload increased from 143 ± 22 to 225 ± 24 meters and 68 ± 7 to 96 ± 12 watt after 3 months. Quality of life increased (SAQ) significantly after 3 month compared to baseline, as well. No further improvement was observed after one year of treament. Despite the symptomatic relief and the improvement in maximal workload computer based analysis (Emory Cardiac Toolbox) of the MIBI-SPECT studies after 3 months of treatment did not show significant alterations of myocardial ischemia compared to baseline (16 patients idem, 7 with increase and 6 with decrease of ischemia, 2 patients dropped out during initial test phase). Interestingly, in the long-term follow up after one year 16 patients (of 27 who completed the one year follow up) showed a clear decrease of myocardial ischemia and only one patient still had an increase of [...]

F.7 ClinicalTrials_2021

Instruction
Given a patient health record, retrieve clinical trials that are suitable for that patient. Trials are "relevant" if the patient met the inclusion criteria and did not meet any exclusion criteria; Trials are "partially relevant" if the patient met the inclusion criteria but was excluded by one or more exclusion criteria.

Query
Electronic Health Record

Patient is a 45-year-old man with a history of anaplastic astrocytoma of the spine complicated by severe lower extremity weakness and urinary retention s/p Foley catheter, high-dose steroids, hypertension, and chronic pain. The tumor is located in the T-L spine, unresectable anaplastic astrocytoma s/p radiation. Complicated by progressive lower extremity weakness and urinary retention. Patient initially presented with RLE weakness where his right knee gave out with difficulty walking and right anterior thigh numbness. MRI showed a spinal cord conus mass which was biopsied and found to be anaplastic astrocytoma. Therapy included field radiation t10-l1 followed by 11 cycles of temozolomide 7 days on and 7 days off. This was followed by CPT-11 Weekly x4 with Avastin Q2 weeks/ 2 weeks rest and repeat cycle. |

Relevant Document

```
<?xml version='1.0' encoding='utf8'?>
  <clinical_study>
    <required_header>
      <download_date>ClinicalTrials.gov    processed    this    data    on    April    27,
2021</download_date>
      <link_text>Link to the current ClinicalTrials.gov record.</link_text>
      <url>https://clinicaltrials.gov/show/NCT04772456</url>
    </required_header>
    <id_info>
      <org_study_id>HP-00086612</org_study_id>
      <nct_id>NCT04772456</nct_id>
```

```
    </id_info>
    <brief_title>Hyperpolarized   13C-pyruvate   Metabolic   MRI   With   Infiltrating
Gliomas</brief_title>
    <official_title>Correlation  of  Hyperpolarized  13C-pyruvate  Metabolic  Magnetic
Resonance  Imaging  and  Tumor  Histopathology  in  Patients  With  Infiltrating
Gliomas</official_title>
    <sponsors>
      <lead_sponsor>
        <agency>University of Maryland, Baltimore</agency>
        <agency_class>Other</agency_class>
      </lead_sponsor>
    </sponsors>
    <source>University of Maryland, Baltimore</source>
[...]
```

F.8   ClinicalTrials_2022

Instruction
Given a patient health record, retrieve clinical trials that are suitable for that patient. Trials are "relevant" if the patient is eligible to enroll in the trial; Trials are "partially relevant" if the patient has the condition that the trial is targeting, but the exclusion criteria make the patient ineligible.
Query
Electronic Health Record
A 19-year-old male came to clinic with some sexual concern. He recently engaged in a relationship and is worried about the satisfaction of his girlfriend. He has a "baby face" according to his girlfriend's statement and he is not as muscular as his classmates. On physical examination, there is some pubic hair and poorly developed secondary sexual characteristics. He is unable to detect coffee smell during the examination, but the visual acuity is normal. Ultrasound reveals the testes volume of 1-2 ml. The hormonal evaluation showed serum testosterone level of 65 ng/dL with low levels of GnRH.
Relevant Document

```
<?xml version='1.0' encoding='utf8'?>
<clinical_study>
    <required_header>
      <download_date>ClinicalTrials.gov    processed    this    data    on    April    27,
2021</download_date>
      <link_text>Link to the current ClinicalTrials.gov record.</link_text>
      <url>https://clinicaltrials.gov/show/NCT00161421</url>
    </required_header>
    <id_info>
      <org_study_id>04-4115-D</org_study_id>
      <secondary_id>HD42454</secondary_id>
      <secondary_id>K23HD045386</secondary_id>
      <secondary_id>GSK002590</secondary_id>
      <nct_id>NCT00161421</nct_id>
    </id_info>
    <brief_title>Oral  Androgens  in  Man-3  (ORAL  T-3)  Pharmacokinetics  of  Oral
Testosterone</brief_title>
    <official_title>Oral Androgens in Man-3: Pharmacokinetics of Oral Testosterone With
Concomitant Inhibition of 5-Reductase by Dutasteride Short Title: ORAL T-3</official_title>
[...]
```

F.9   ClinicalTrials_2023

Instruction
Given a patient descriptions, retrieve clinical trials that suitable for that patient. The patient description (query) is a questionnaire that is filled by the patient or their clinician. Trials are "relevant" if the patient met the inclusion criteria and did not meet any exclusion criteria; Trials are "partially relevant" if the patient met the inclusion criteria but was excluded by one or more exclusion criteria.
Query
Questionnaire: {'definitive diagnosis': 'primary open angle glaucoma', 'intraocular pressure': None, 'visual field': 'moderate field damage', 'visual acuity': '0.3', 'prior cataract surgery': 'no', 'prior LASIK surgery': 'no', 'comorbid ocular diseases': 'corneal edema'}
Relevant Document

```
<?xml version='1.0' encoding='utf8'?>
<clinical_study>
     <required_header>
          <download_date>ClinicalTrials.gov        processed        this        data        on        May        09,
2023</download_date>
          <link_text>Link to the current ClinicalTrials.gov record.</link_text>
          <url>https://clinicaltrials.gov/show/NCT00047528</url>
     </required_header>
     <id_info>
          <org_study_id>C-02-41</org_study_id>
          <secondary_id>C-02-41</secondary_id>
          <nct_id>NCT00047528</nct_id>
     </id_info>
     <brief_title>Phase 3 Study to Evaluate IOP Lowering Therapy in Open Angle Glaucoma
and Ocular Hypertension C-02-41</brief_title>
     <official_title>Phase III Safety and Efficacy Study to Evaluate Combination
IOP Lowering Therapy in Open Angle Glaucoma and Ocular Hypertensive Patients
(C-02-41).</official_title>
     <sponsors>
          <lead_sponsor>
               <agency>Alcon Research</agency>
               <agency_class>Industry</agency_class>
          </lead_sponsor>
```
[...]

F.10 Genomics-AdHoc_2004

Instruction
Given a biomedical question, retrieve documents from the MEDLINE bibliographic database to answer the question. The following is the context of this search: `Ferroportin1 (also known as SLC40A1; Ferroportin 1; FPN1; HFE4; IREG1; Iron regulated gene 1; Iron-regulated transporter 1; MTP1; SLC11A3; and Solute carrier family 11 (proton-coupled divalent metal ion transporters), member 3)` *may play a role in iron transport.*
Query
Ferroportin-1 in humans
Find articles about Ferroportin-1, an iron transporter, in humans.
Relevant Document
{ 'date_completed': '19990520',
'date_completed_indexed': '19990520',
'last_revision_date': '20031114',
'issn': '0027-8424',
'volume': '96',
'issue': '6',
'publication_date': '1999 Mar 16',

'title': 'Mechanism of increased iron absorption in murine model of hereditaryhemochromatosis: increased duodenal expression of the iron transporterDMT1.',

'pages': '3143-8',

'abstract': 'Hereditary hemochromatosis (HH) is a common autosomal recessive disordercharacterized by tissue iron deposition secondary to excessive dietaryiron absorption. We recently reported that HFE, the protein defective inHH, was physically associated with the transferrin receptor (TfR) induodenal crypt cells and proposed that mutations in HFE attenuate theuptake of transferrin-bound iron from plasma by duodenal crypt cells,leading to up-regulation of transporters for dietary iron. Here, we testedthe hypothesis that HFE-/- mice have increased duodenal expression of thedivalent metal transporter (DMT1). By 4 weeks of age, the HFE-/-micedemonstrated iron loading when compared with HFE+/+ littermates, withelevated transferrin saturations (68.4% vs. 49.8%) and elevated liver ironconcentrations [...]

}

F.11 Genomics-AdHoc_2005

Instruction
Given a biomedical question, retrieve documents from the MEDLINE bibliographic database to answer the question.
Query
Describe the procedure or methods for how to "open up" a cell through a process called "electroporation."
Relevant Document
{ 'date_completed': '19990413', 'date_completed_indexed': '19990413', 'last_revision_date': '20001218', 'issn': '0006-291X', 'volume': '256', 'issue': '1', 'publication_date': '1999 Mar 5', 'title': 'Optimisation of electroporation for biochemical experiments in live cells.', 'pages': '235-9', 'abstract': 'To introduce into cells small molecules, which do not permeate the cellmembrane naturally, electroporation is the fastest and most efficienttechnique. Although it is not completely benign, the speed at which a fullpopulation of cells can be permeated gives it a strong advantage over allother cell permeation techniques. Here we describe the potential damagingeffects of electroporation and how to derive conditions which avoid theseand assure its use for biochemical experiments in live cells.', 'ci': 'Copyright 1999 Academic Press.', 'affiliation': 'School of Biochemistry, University of Birmingham, Birmingham, Edgbaston,B15 2TT, United Kingdom.', [...] }

F.12 Genomics-AdHoc_2006

Instruction
Given a biomedical question, retrieve passages that contained answers to the question from a literature corpus.
Query
What is the role of PrnP in mad cow disease?
Relevant Document

{ 'owner': 'NLM', 'status': 'MEDLINE', 'date_completed': '20040722', 'date_completed_indexed': '20040824', 'last_revision_date': '20041117', 'publication_model': 'Print', 'issn': '0022-1317 (Print)', 'volume': '85', 'issue': 'Pt 8', 'publication_date': '2004 Aug', 'title': 'Characterization of two distinct prion strains derived from bovinespongiform encephalopathy transmissions to inbred mice.', 'pages': '2471-8', 'ab': 'Distinct prion strains can be distinguished by differences in incubationperiod, neuropathology and biochemical properties of disease-associatedprion protein (PrP(Sc)) in inoculated mice. Reliable comparisons of mouseprion strain properties can only be achieved after passage in geneticallyidentical mice, as host prion protein sequence and genetic background areknown to modulate prion disease phenotypes. While multiple prion strainshave been identified in sheep scrapie and Creutzfeldt-Jakob disease,bovine spongiform encephalopathy (BSE) is thought to be caused by a singleprion strain. Primary passage of BSE prions to different lines of inbredmice resulted in the propagation of two distinct PrP(Sc) types, suggestingthat two prion strains may have been isolated. To investigate thisfurther, these isolates were subpassaged in a single line of inbred mice(SJL) and it was confirmed that two distinct prion strains had beenidentified. MRC1 was characterized by a short incubation time (110+/-3days), a mono-glycosylated-dominant PrP(Sc) type and a generalized diffusepattern of PrP-immunoreactive deposits, while MRC2 displayed a much longerincubation time (155+/-1 days), a di-glycosylated-dominant PrP(Sc) typeand a distinct pattern of PrP-immunoreactive deposits and neuronal loss.These data indicate a crucial involvement of the host genome in modulatingprion strain selection and propagation in mice. It is possible thatmultiple disease phenotypes may also be possible in BSE prion infection inhumans and other animals.', 'ad': 'MRC Prion Unit and Department of Neurodegenerative Disease, Institute ofNeurology, [...] }

F.13   Genomics-AdHoc_2007

Instruction
Given a biomedical question asking for lists of specific entities, retrieve passages that contain one or more named entities of the given type with supporting text that answered the question. In this question, the entity type is PROTEINS, its definition is: Linear polypeptides that are synthesized on ribosomes and may be further modified, crosslinked, cleaved, or assembled into complex proteins with several subunits.
Query
What serum [PROTEINS] change expression in association with high disease activity in lupus?
Relevant Document
{ 'owner': 'NLM', 'status': 'MEDLINE', 'date_completed': '19970207', 'date_completed_indexed': '19970207', 'last_revision_date': '20051117', 'publication_model': 'Print', 'issn': '0022-1007 (Print)', 'volume': '185', 'issue': '1', 'publication_date': '1997 Jan 6', 'title': 'Interleukin-4 protects against a genetically linked lupus-like autoimmune syndrome.', 'pages': '65-70', 'ab': 'Interleukin-4 (IL-4) provides support for humoral immune responses through upregulation of T helper (Th) type 2 cell differentiation, but it is not known whether IL-4 promotes antibody-mediated autoimmune diseases such as systemic lupus erythematosus (SLE). Here, we show that the constitutive expression of an IL-4 transgene by B cells completely prevents the development of lethal lupus-like glomerulonephritis in the (NZW xC57BL/6.Yaa)F1 murine model of SLE. This was associated with marked changes in the serum levels of IgG subclasses, rather than in the total levels of anti-DNA antibodies, with a lack of IgG3, a decrease of IgG2a, and an increase in IgG1 subclasses, and by a strong reduction [...] }

F.14   CARE

Instruction
You are a protein engineer capable of predicting EC numbers from a combination of textual information and reactions corresponding to specific proteins. Given a reaction and textual information about an EC number, you can determine the most likely enzyme class for that reaction. The retrieval results are proteins documents that record EC numbers, sequences, and relevant reactions of proteins.
Query
Reaction text: naloxone + NAD(P)H = 6alpha-naloxol + NADP+   *Reaction:* `C=CCN1CC[C@]23c4c5ccc(O)c4O[C@H]2[C@@H](O)CC[C@@]3(O)[C@H]1C5.NC(=O)c1ccc[n+]` [...]   *Textual information about an EC number: oxidoreductase; oxidoreductase, acting on CH-OH group of donors; oxidoreductase, acting on the CH-OH group of donors, NAD or NADP as acceptor; morphine 6-dehydrogenase.*
Relevant Document
EC number: 1.1.1.218   *Sequence:*   `MAGKSPLINLNNGVKMPALGLGVFAASAEETASAIASAISSGYRLIDTARSYNNEAQVGEGIRNSGVDRAEMFVTTKLFNCDYGY` [...]   *Relevant reactions (ID, Text, Reaction):*   *[1] cyclohexene-2-ol + NADP+ = cyclohexene-2-one + NADPH*   `NC(=O)c1ccc[n+]([C@@H]2O[C@H](COP(=O)(O)OP(=O)(O)OC[C@H]3O[C@@H](n4cnc5c(N)ncnc54)[C@` [...]   *[2] 1-indanol + NADP+ = 1-indanone + NADPH NC(=O)C1=CN([C@@H]2O[C@H]*   `(COP(=O)(O)OP(=O)(O)OC[C@H]3O[C@@H](n4cnc5c(N)ncnc54)[C@H](OP(=O)(O)O)[C@@H]3O)[C@@H]` [...]   *[3] 1-indanol + NADP+ = 1-indanone + NADPH*   `NC(=O)c1ccc[n+]([C@@H]2O[C@H](COP(=O)(O)OP(=O)(O)OC[C@H]3O[C@@H](n4cnc5c(N)ncnc54)[C@` [...]   *[4] naloxone + NAD(P)H = 6alpha-naloxol + NADP+*   `C=CCN1CC[C@]23c4c5ccc(O)c4O[C@H]2[C@@H](O)C=C[C@H]3[C@H]1C5.NC(=O)C1=CN([C@@H]2O[C@H]` [...]   *[5] codeine + NAD(P)+ = codeinone + NAD(P)H*   `COc1ccc2c3c1O[C@H]1[C@@H](O)C=C[C@H]4[C@@H](C2)N(C)CC[C@@]341.NC(=O)c1ccc[n+]([C@@H]2` [...]

[...]

Instruction
Query
Relevant Document

References