一种基于图片颜色特征检索相似图的系统

# 一、缩略语和关键术语定义

RGB：RGB色彩模式是工业界的一种颜色标准，是通过对红（R）、绿（G）、蓝（B）三个颜色通道的变化以及它们相互之间的叠加来得到各式各样的颜色的，RGB即是代表红、绿、蓝三个通道的颜色，这个标准几乎包括了人类视力所能感知的所有颜色，是运用最广的颜色系统之一。  
Java Swing：Swing是一个用于开发Java应用程序用户界面的开发工具包。

# 二、背景技术

## 1、相关技术背景

相似图片搜索技术是一种利用计算机视觉和机器学习技术，通过分析图片的视觉特征和内容，来寻找与指定图片相似的其他图片的技术。这种技术的背景包括图像特征提取、相似度度量、索引方法和大规模数据处理等方面的研究。常见的相似图片搜索技术包括基于特征描述子的方法（如 SIFT、SURF、ORB 等）、基于深度学习的方法（如 CNN 特征提取）以及基于哈希索引的方法等。这些技术的发展使得相似图片搜索在诸如电子商务、图像管理、安全监控等领域得到了广泛的应用。

## 2、与本发明相关的现有技术

相似图片搜索技术有多种方案，包括基于传统特征描述的方法、基于深度学习的方法以及基于哈希索引的方法等。

1. 基于传统特征描述子的方法：
   * 方案：使用传统的特征描述子如SIFT（尺度不变特征变换）、SURF（加速稳健特征）、ORB（Oriented FAST and Rotated BRIEF）等进行特征提取，并利用特征间的相似度度量方法（如欧氏距离、汉明距离等）进行相似图片搜索。
   * 缺点：对于大规模数据的搜索速度较慢，同时不太适用于处理复杂的场景和多样化的图像。
2. 基于深度学习的方法：
   * 方案：利用深度学习模型（如卷积神经网络）对图像进行特征提取，并通过计算特征向量之间的相似度进行相似图片搜索。
   * 缺点：对于小样本数据需求较大，需要大量训练数据，同时需要较强的计算资源。
3. 基于哈希索引的方法：
   * 方案：利用哈希函数将图像特征映射到低维度的二进制编码，并建立索引结构进行相似图片搜索。
   * 缺点：哈希方法可能会损失一定的特征信息，降低搜索的准确性，尤其在处理复杂图像时表现不佳。

综合来看，不同的相似图片搜索技术方案各有优缺点。基于传统特征描述子的方法对光照变化、旋转、尺度变化等具有一定的鲁棒性，但在大规模数据处理和复杂场景下表现较差；基于深度学习的方法能够学习复杂特征，适用于处理复杂场景下的相似图片搜索，但需要大量训练数据和较强的计算资源；基于哈希索引的方法适用于大规模数据的高效相似图片搜索，但可能会损失一定的特征信息。

# 三、本发明技术方案的技术概述

## 1、本发明要解决的技术问题：

1.研究高维颜色空间下的相似图片搜索算法，图片特征提取、相似度计算、数据存储与索引方案设计。  
2.开发实际可用的检索工具，代码实现图片特征提取、相似度计算、数据存储与索引功能。该工具的实现需要考虑效率、准确性和用户友好性，并且需要进行充分的性能优化以处理大规模的图片数据。同时，需要确保用户界面友好，并提供直观的搜索结果展示。

## 2、技术原理简要说明：

**算法原理**：  
任何一种颜色都是由红绿蓝三原色（RGB）构成，图片的每个像素点都有一个 RGB（如：0,255,255），统计每种颜色（RGB）在图片所有像素上出现的次数，可得出该图片的颜色特征。

例子：  
(0,0,0) 出现次数 10000 次  
(0,0,1) 出现次数 25 次  
...  
(0,0,255) 出现次数 90 次  
...  
(255,255,255) 出现次数 1000 次  
把这些用次数收集起来，得到集合{10000,25,..., 90,..., 1000}，这个就可以代表一张图片上分布 RGB 的情况。  
但如果 R, G, B 统计都是 0-255 范围的话，有 255^3=1600 多万种组合。所以实际上为了简化计算，将 0～255 分成四个区：0～63 为第 0 区，64～127 为第 1 区，128～191 为第 2 区，192～255 为第 3 区，可以理解为把 R/G/B 都简化为了 4 种而不是 255 种，这样 RGB 的组合就只有 4^3=64 个。

分别对两个图片都这样操作，然后得到这个数据集合，再通过皮尔逊相关系数（一种计算两组数据是否存在相关性的算法）进行对比，就可以得出这两张图片的相似度。

**工具开发原理**：  
1.使用 IDEA 编译器的插件开发接口进行工具开发  
2.使用 Java Swing 进行工具 UI 以及交互开发  
3.将算法转化为代码进行实现  
4.工具检索功能调用算法接口

# 四、本发明技术方案的具体实施

## 1、详细描述本发明为解决前文所提到的技术问题, 采用了那些技术方案细节, 为什么需要采用这些技术细节

1. 生成像素点 RGB 色值集合：遍历像素点，将每个像素点的颜色 RGB 数据值存入集合中。
2. 简化颜色空间：将每种原色的取值范围 0-255 分成四个区，得到 64 种颜色组合。
3. 统计颜色组合：统计每种颜色组合包含的像素数量，得到关于颜色分布的 64 维向量，称为图片的“指纹”或特征值。
4. 相似度计算：通过计算两张图片的 64 维向量之间的相似度，可以使用皮尔逊相关系数或者余弦相似度来衡量向量之间的相似程度，从而判断两张图片的相似程度。
5. 数据存储与索引：将图片的特征向量以键值对的形式存储在 json 文件中，以支持高效的相似图片搜索。
6. 工具交互：提供相似程度筛选、待检索相似图预览、搜索结果预览、拖拽上传文件等功能
7. 相似程度筛选：根据相似度设置，可返回不同相似程度图片。相似度为 1 则为检索相同图片，如果没有相同图片，可适当降低相似度查找，会搜寻指定相似度以上的图片（如 0.8，会查找>=0.8 相似程度图片）
8. 待检索相似图预览：提供图片文件名称、大小、尺寸等信息便于用户查看
9. 搜索结果预览：列表展示检索结果，包含文件路径、信息等便于用户查看

## 2、本发明带来的有益效果：

该发明简化了颜色特征的提取方式，降低了计算复杂度，使得相似图片搜索更加高效。同时，利用 64 维特征向量表示图片，能够有效地捕捉到图片的颜色分布特征，实现了对相似图片的有效识别。  
另外该发明开发实际可用工具，能够方便快捷的查找出相似图片，降低图片检索的成本。

## 3、针对上述技术方案是否还有替代方案同样能完成发明目的：

除了基于颜色直方图的相似图片搜索方法外，还可以利用基于深度学习的方法来学习图片颜色分布的特征表示，通过神经网络等技术实现相似图片搜索。此外，也可以考虑使用局部特征描述子（如 SIFT、SURF）或者基于哈希索引的方法来进行相似图片搜索。这些方法可能会在精度、鲁棒性或者适用场景等方面有所差异，需要根据具体应用需求进行选择。

# 五、附件

参考文献  
<https://www.ruanyifeng.com/blog/2013/03/similar_image_search_part_ii.html>  
<https://www.ruanyifeng.com/blog/2011/07/principle_of_similar_image_search.html>  
<https://www.runnable.run/archives/javashixainwenzhangxaingsidubijiao>

工具截图：  
![](data:image/png; charset=binary;base64,iVBORw0KGgoAAAANSUhEUgAAA6cAAAPoCAIAAACtcB+eAAAACXBIWXMAABJ0AAASdAHeZh94AAAAEXRFWHRTb2Z0d2FyZQBTbmlwYXN0ZV0Xzt0AACAASURBVHgBAIiDd3wB8vLyAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAgAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA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AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAALpvDlTVh8+7aiMBAQAAAAAAAAAAAAAAAAAAAAAAAAAA/J0lIwAAIABJREFUAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAMnn+ILI7TIXB344EwUCAQAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAP7//qDRqtTr2XA2ZB4PGwAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAPH58+j06gAAAAAAAAAAAAAAAAAAAAAAAAAAAB4PGwkECAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAP39/d3d3fHx8QAAAAICAg4ODggICAAAAPj4+PLy8v39/eTk5PPz8yMjIwMDAwAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAN/f3+zs7BoaGgAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAP7+/qKiotzc3AAAAAAAAAgICBMTE+vr6/r6+vr6+rm5uezs7FFRUQAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAJ3U8ava8wAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAKva8wAAAGUtDwAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA/vUAz/79CgIAAWYO8joG/YzlIOX+A/X6B7j1CLbl4ysK33YjKy0OIgAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAQAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADL5tCf0an9//4AAAAIBAduNWMjER8AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAANPDn+9vfrn6P98/MEEBAafHUDDAwAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAD//+/OrKrMEkZnQyEAAADfvZm67jRWVDIRAQEAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADfvZm67jRWVDIRAQEAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADs7Ozw8PAZGRkUFBQAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAD+/v7i4uLz8/MdHR0DAwMAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADr6+vm5uYAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAaGhobGxsAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAZGRn29vby8vLj4+MAAAAAAAAMDAwZGRkAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADl5eXz8/MAAAAAAAAAAAAAAAAAAAAAAAAAAAD7+/vx8fHx8fHz8/MoKCgAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAD9/f3q6urt7e36+voAAAAAAAAAAAAHBwcSEhIWFhYDAwMAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAABNJUXh8eTT6tik1K4AAAAAAAAkESBMJEQAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAD29vbb29sAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAlJSUNDQ0AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAD//7pwD1SfAAAAAAAAAAAAYazykUYAAAD//93b1QAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADJ5/iCyO37/v/O6vnd8PsoEgYAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAD+//6g0arJ5s8AAACQypx3OmoXCxUAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAKBAi53sDV69oAAAAAAAAAAAAAAAAAAAAAAAByN2YnEyMAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAD////d3d3x8fEAAAAYGBgaGhoDAwMAAAAAAAAAAAD9/f3m5ubo6Ojx8fHd3d0lJSUBAQEAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADf39/s7OwAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAC7u7vc3NwAAAAWFhZPT08fHx8AAAAAAADY2Nizs7Px8fHNzc0aGho3NzcAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADF5ver2vMAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACr2vMqEwY7GgkAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAD9AOXy/f7//wn+AAL/AAAdBACGHeKM4yPQ+Av//QP//gPR7gta6utVHOh5KTcFAgMAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAiIN3fAQAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADj8uaf0an9//4AAAAAAAAOBw0UChIAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADF9dq289KFGFQAAAAAAAAAAAAAAAAAAAD98PHxubsAAAAAAAD88PDyvMARUEwAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADvzauqzBJGZkIhAQEAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAD//+/u7gAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADvzaurze8AAAAAAAAAAAD//xE0VlQzEQEAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAD//+/u7gAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAD8/Pzj4+Pt7e0dHR0KCgoAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAD+/v7t7e3v7+/4+Pj9/f0AAAAAAAAAAAAAAAAAAAAAAADv7+/19fUgICALCwsAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADh4eHy8vIAAAAAAAAAAAAAAAD09PTb29skJCQBAQEAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAZGRkRERH29vb29vbt7e39/f0AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADy8vLg4OD8/PwAAAAAAAAAAAAAAAAAAAD5+fnn5+fs7OwfHx8ODg4AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAD///+g0qrT6tgAAAAAAAAAAAAAAADc7+CNyZluNmMGAgUAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADdlUQxecphrPHyRgEAAAAAAAD/um8ObwDykUYBASNrvPJrAAAAAAAAAAD//7pwD1QArPGRRgEAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADJ5/iCyO37/v8FAwGAORMoEgYAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAD+//6g0arJ5s8AAAAAAAAkEiAUCRIAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAFAwVpMl6XzqLV69oAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADo6Ojx8fEAAAAiIiITExMAAAAAAAD6+voAAAAGBgYDAwMdHR0KCgre3t7x8fHo6OgZGRkAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADf39/s7OwAAAAAAAD09PTLy8sAAAAAAAAAAAAAAAAGBgYNDQ0XFxcLCwsAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADx8fHGxsYAAAAVFRVpaWkFBQUAAAAAAAAAAAAoKCgcHByUlJT09PS9vb0yMjIFBQUAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAD8/v+a0vEAAAAAAAAAAAAAAAAAAAAAAAAAAABjMBQAAACd0OwAAAAAAAAAAAAAAAAAAAAAAACa0vE3GAgEAgEAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAD1/+Hy/gn+/wH/AAH/AAH//wH+AAFtG+ec/gbD6Az+/QT//gT9/ASm2gzO6NGcPSkUBgkAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAEAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAy+bQn9Gp/f/+AAAAAAAAAAAA6vXsjsmacjdmDwcNAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAIAYVyPbcwvXYPgsoAAAAAAAAAAAA/fDx5YOI+ubo4xkHIkdN+6Gt7amtAAAAEVBMAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAC3ZwFKALb/mUkAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAC3ZwFKALb/mUkAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAQERM1VnMwAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA/xEzVlQyEQEBAAAA/+/NrKqazCRGZ0MhAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAQERM1VnMwAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA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AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAP//3ZaKnzaHz2sjAQAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAALpvDlTVh8+7agCWRTF5ygAAAABUD58AADaHz7tqAJZFMXkAh8+7aiMBAQAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAO74/QwFAgYDAQAAAAAAAAAAAAAAAMnn+ILI7fv+/wUDAYA5EzUXCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAP7//qDRqsnmzwAAAAAAAC8XKmcxXAMCAwAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAUDBT4eONbs2////wAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAPDw8P39/QICAhoaGgAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAABoaGurq6v39/fDw8BMTEwAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA0NDSAgIODg4P///wAAAAYGBhoaGgAAAAAAAAAAAP////f39/Ly8v7+/ubm5gICAhkZGQAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAOXl5QAAAAkJCR0dHQAAAAAAAAAAAAAAAAAAAAAAAAAAACUlJQEBAf///+Xl5SsrKwAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAMXm9wAAAAAAAAAAAAAAAAAAAAAAAGMwFGQwFQAAAAAAAGQwFQAAAJ3Q7AAAAAAAAAAAAAAAAAAAAMXm9z4cCgAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAPL++fL9Cf//Af8AAf4AAf//Af4AAf8AAf7/AUwe7OTyE+H3DP/+A//9A//9A+DuEVm37LZOGwcDAQAAAAAAAAAAAAAAAAAAAAAAAAQAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADT6tj9//4AAAAAAAAVChNmMly+38Sw2rkAAADo9OqOyZpyN2YPBw0AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAABRDzSp8MlP4JAAAAAAAAAL9/12AfT/GAeNYhieGjsAAAANPDkAAADpl5wBBwYAAAAAAAAAAAAAAAAAAAAAAAAAAAAAALdnAUqaAAAAAAAAOY7axnElAAAAAAAAALdnAUqaAAAAAAAAOY7axnElAAAAAAAAAAAAAAAAAAAAAAAAAAAAALdnAUqaAAAAAABmtv+ZSQDbjzomcscAAAAASgGaAAA5jtrGcSUAANuPOiZyxwAAAAAAAGa2/5lJAAAAAAC3ZwFK0462VatKcscAOY66VatGcscAAAAASgGaAAA5jtrGcSUAAAAAAAAAAAAAAAAAAAAAAAAAAAABAQFERESPj4/w8PAAAAAAAAAAAAAAAAAAAAAAAAAQEBBdXV0BAQEAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAD/782sqszvAQEAAAAAAAAjRWVDIQEAAAAAAAD//+/OrKrN7wEAAAD//yNGZkIhAQEAAAAAAAD/372bu90AAAAAAAD/IzM0AAAAAAAAAAAAAADfvZm67jRWVDIQAPDOrKrMEkZWEMyrze8AAAD//yNGZkIhAQEAAAAAAAD/372bu90AAAAAAAARM0Ui3rrMEkZnQyEAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAABASEyNBKqzM7fMkIhAQEAAAD/782sqszvAQEAAAD/ETNWVDIRAQHfvZm67jRWVDIRAQEAAAAAAADfvZm67jRWVDLwvpq67jRWVDIRAQEAAAD//9++mrrdAQEAAAD/ETNWVDIRAQEAAAD/782sqszvAQEAAAD/ETNWVDIRAQEAAAD//9++mrrdAQEAAAAjRWVDIQEAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAPDw8RERHd3d0AAAAAAAAAAAAAAAAAAAAAAAAAAAAjIyMPDw8AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAD8/Pzj4+Pt7e0dHR0KCgoAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADh4eH9/f0AAAAZGRkXFxcBAQEAAAAAAAAAAAD19fX6+voAAAAICAgfHx8KCgoAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADz8/Pm5uYAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAaGhoODg4AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAKCgoSEhL7+/vz8/MAAAADAwMKCgoAAAAAAAAAAAD29vb9/f0AAAAJCQkJCQkKCgoAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAASEhICAgIAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADj4+P///8AAAACAgImJiYKCgoAAAAAAAAAAAD7+/vu7u7+/v4YGBgAAADm5uYCAgIoKCgAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAeDhs5HDPu9/DZ7d0AAAAJBAgeDxsAAAAAAAAAAADi8eX3/PgAAAAeDhobDhkeDhsAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA3rivygArdiIAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAja7zxarpwD1QArPGRRgEAAAD//90AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADj8/yp2fOAORMGAwEAAAAAAADJ5/iCyO37/v8FAwGAORM1FwgAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAD2+/cKBQkAAAAAAAAAAAAAAAD+//6g0arJ5s8AAAAAAAAvFypnMVwDAgMAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADU69mcz6b///8BAQH///8AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAD09PQAAAAODg4DAwMAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADAwMODg7w8PD09PQTExMAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAUFBQAAADg4OD///8GBgYbGxsAAAAAAAAAAAAAAAAAAAD29vbb29v6+vrm5uYTExMGBgYAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAD29vYAAAAREREBAQEAAAAAAAAAAAAAAAAAAAAAAAAAAAAJCQkJCQn29vb39/cAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADb8PsAAAAAAAAAAAAAAAAAAABjMBRkMBUAAAAAAAAAAAAAAABkMBUAAACd0OwAAAAAAAAAAAAAAADb8PsAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAD0/QLy/Qr//wH+AAH/AAH+/wH/AAH+AAH+/wEAAAFPI+eq6Aj9+vr+/Pf/+wT//AP16QODwfWEQicAAAAAAAAAAAAAAAAAAAAAAAAEAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAYC9W/gD/y+bQFQoTczdnBwMGSSRCAAAAsNq5AAAA6PTqfsGLIhAeaDNdBwMHAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA4frseOiq/gD/AAAAAAAAAAAA9QkDimIbAAAA9QkCcOakiBhWHwYUDTw5CCMhBRkYAAAAAAAAAAAAAAAAAAAAAAAAALdnAUqaOY7a/3ElAAAAANuPj7cAcUkAALdnAUqaOY7a/3ElAAAAANuPj7cAcUkAAAAAAAAAAAAAAAAAAAAAAAC3ZwFK047a/3ElAAAAt4+P20lxJXHG/3G3ZwFKALb/mUkAAAAAAAAA24+MAKH//yUAAADbjzomSjoo2sZxJQAAAAAAAMdySi22//9JAAAAAABx/3G3ZwFKALb/mUkAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAEBAQaWlpkZGR9vb2AAAAAAAAAAAAAAAACgoKaWlpEBAQAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA/9+9m7vdI0ZmVSEBAAAA/+/NrKqaqzRWVTMRAAAA8M7OAERmZhEB///vzqyquqwQVlQyEQEB/9+9m7vdI0VlQyEBAAAA372Zu+8BABIAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAd27vDNVZmYR///fvpq6ur4iZ0MhAAAA782rq83vI0VlQyEBAAAA372Zu+8BABIAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAECIiEsze7vAAIREA/9+9mrruNFZmMxEB///vzqyqqqwAVlQyICIkANze3vAyMxEAAAAA/+/NzNwAJEYyEQEB8AAAAAAAAAAAAAAA/9+9m7vdETRWZjMRAAAA/+/NzuAAMyEA/9+9mrruNFZmMxEB///vzqyqqqwAVlQyEADgvpq67jRWZjMRAAAA383N7yAyEQEBAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAJCQk+vr64+PjAAAAAAAAAAAAAAAAAAAAHR0dJCQkAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA9vb22dnZFBQUGhoaAwMDAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA8vLy9vb2AAAAFRUVGBgYAAAAAAAAAAAAAAAAAAAAAAAAAAAAExMTHBwcAgICAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADw8PDw8P7u7u8/PzAAAACgoKJCQkAAAAAAAAAAAA3Nzc8/PzAAAADg4OGhoaAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAMahQMUAACAASURBVAAA39/fDQ0NFRUVAQEBAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA9vb29PT0AAAAAAAAISEhCgoKAAAAAAAAAAAA8fHx3Nzc/v7+CAgIEBAQ8/Pz9fX1AAAA9vb2CgoKAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAALxcqLxcqx+XN2e3dAAAAHg8bcjdmAAAAAAAAAAAAjsma2e3dAAAAKxUnUCdIAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAN3aygA2USMAAAAAAAAA//+6cA9UnwAAAAAAAABhrPGQRgEBAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAQEja7zyawAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAzOn4gMftgDkTBgMByef4gsjt+/7/BQMBgDkTNRcIAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA4fHkkcqdUihJPB02AAAAAAAA/v/+oNGqyebPAAAAAAAALxcqZzFcAwIDAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA1OvZmM2i+/78BAIEZDBYw+PK1evaAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA+vr6AAAABwcHAAAAAAAAAAAAAAAAAAAAAAAAAAAA////AQEBAAAAAAAAAAAABwcHAAAA+vr6AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAFBQUAAAA4ODgAAAAAAAAAAAAAAAAAAAAAAAAAAAACgoKISEh2dnZ/v7+7e3tGRkZAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACwsLAAAA7Ozs////AQEBAAAAAAAAAAAAAAAAAAAAAAAA9PT09vb2AAAACwsLAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA7ff9AAAAAAAAAAAAAAAAYzAUZDAVAAAAAAAAAAAAAAAAAAAAAAAAZDAVAAAAndDsAAAAAAAAAAAA7ff9AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA+P4K8/0J/v8B/wAB/gAB/v8C/wAA/gAC//8A/gAC8/YE5cIDAPv8Avz4Avz9Afz9Avz9KS4gAAAAAAAAAAAAAAAAAAAAAAAAAAAABAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAIBAmIvVxEID0IfOxEJDwAAAAAAAEkkQgAAALDauQAAAPj8+dbs25HKnW82YwcDBwAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAPX++Xfoqeb78AAAAAAAAAAAAAAAAAAAAPUJAwAAAAAAAOX773foqZ0cZAsCBwUZGAAAAAAAAAAAAAAAAAAAAAAAAAAA24+DmgBmtsZxJQAAAAAAAAAlcXElAAAA24+DmgBmtsZxJQAAAAAAAAAlcXElAAAAAAAAAAAAAAAAAAAAAAAAAADb2NMAAC0oJQAAAAAAAElxcQAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACVxmXEAAAAAAAAAJXF9ZnJK2NwAACUAAAAAAAAAZraZSQAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAABgYGGVlZZaWlvv7+wAAAAAAAAUFBWVlZRgYGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAP//37663BE0VkMhAQAAAAAAAAERM0Q03qrMzt8yQiEBAREzQzMAAAAAAAEBETI0JMy68PAAABD/37663BE0VkMhAQAAAAAAACBCVjPuqswAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAP8RM0QyEAAAAAEBITI0EtzM3t9CICAA4M7M7hE0VkMhAQAAAAAAACBCVjPuqswAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA7vDwAP8Q787M3CRGZjMRAQAAAAEBETJENN6q3t7wMjIgMjQSqt7e8DMzEQAAAPDe3u4AJDQgAAAAAAAAAAAAAAAAAP//787M3P8jRlUzEQAAAAAAAAERMzMRAP//787M3CRGZjMRAQAAAAEBETJENN6q3t7wMjIA7u4AABISEAAAAAAAACEzMwAAAAAAAA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Ly8vLy8vLy8vLy8vLy8vKRRgAAAAAANofP8fLy8vLy8qxhAAA2h8/x8fLy8vLy8vLy8vLy8vHPhzYAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAP/dlUQODg4ODg4ODg4ODg5Eld3//wAAAAAAAAAAAAAAAAAAAAAAAAAAAAEBI2u88vLy8vLy8s+HNgAAAAAAAAEBRpDPUa8xD0SV3f/dlUVU1YeZaiMBAQAAAP+6bw4ODg4ODg4ODg4ODg4ODjF5ygAAynkxDw4ODg4ODg4ODg4ODg4ORJXd/wAAAAAAAAAAAAAAAAAAAAAAAAAANofP8fLy8vLy8vLy8vHxz4c2AAAAAAAAAEaR8vLy8s+HNmGsz4c2Yazx8fLykUUAAAA2h8/x8fLy8vLy8vHxz4c2AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAIAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAja7zy8vLPhzYANofP8fHy8pFIAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA3rivyjYmIwAAAAAAAAAAAAAAAAABI2t2YZ+1uwAAAAAAADYmIwAAAAAAAAAAAAAAAAAAAAAAAAC6bw5Eld0AAAAAAAAAAAD/um8ORJXd//8AAAAAAAAAAAD//7qSecphdmojAQH//92Wip8AYXZrIwEAAAABI2uZhzbKr7jd//8AAAAAAAAAAAAAAAAAAADdlUQPZwCZ8fGsYQAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADdlUQPZwCZ8fGsYQAAAAAAAAAAAAAAAAABASNqdmHKeZK6//8AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAANuPg5oAZn1xJQAAAAAAJXGhjjnHq7TbAAAAAAAAAAAAAAAAAAAAAAC3sJoAOY50SQAAAAAAJXGhjjkAmrC3AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGa2///////////ajgByJjqP2wAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAC3ZwEBAQEBAQEBAQEBAQEBAQEBAUqaAMdyJgEBAQEBAQEBAQEBAQEBAQEBOo8kmf///////7ZmAABmfXElSZn/////////tmYAOY7a/////7ZmAAAAAAAAAAAAAADbj4MAtsZxJQAAAABJmbZmAGa2////2o45AGa2/5lJAAC3ZwE6j9sAAADbjzoBAQEBAQEBAQEBSpoAAJpKAQEBAQEBAQEBAQEBAQEBAQEBAQEBAQEBZ7cAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAC3ZwEBAQEBAQEBAQEBAQEBAQEBAUqaAMdyJgEBAQEBAQEBAQEBAQEBAQEBOo/bAAAAAAAAmkoBAQEBASZyxwCaSgEBAQEBJnLHAJpKAQEBAQEmcscAAAAAAAAAAAC3ZwFntwC3ZwFK047amUkAAAAAAAAAAAC3sJo5VUwlAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAANuPg5pmtv/////////////////////GcSUAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAyHAhNKwwAAADx+P8AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAABFkM+H1VREld0AAAAAAAAAAAAAAAAAAAAAAAAAAAC6bw4ODg4ODg4ODg4ODg4ODg4PD1SfAMp5MQ8ODg4ODg4ODg4ODg4ODg4ORJXc/rpwMXkANgB5MQ8ODg4ODg4ODg4ODg4ODg4ODg4ODg4ODg4ODkSV3f8AAAAAAAAAAAAAAAAAAAD/um9UnwAAynkxDw8ODg4ODg4ODg5Eld0AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGGs8fHy8vLxrGEAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAD/3ZVEDg4PMXnKAADKeTEPMXnKAMp5MQ8ODkSV3f8AAAAANofP8fHy8vLPhzYANofP8fHy8vLx8c+HNgAANofP8fHx8axhAAAAAAC6bw4PD1SfAMp5MQ8ODm+7AAAAAMp5MQ8ODg4ODg4ODg4PDzF5ygAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAynkxDw8ODg4ODg4PDzF5ygAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADh4eHY2NjY2NjY2NjY2NjY2NjY2NjY2NjY2NjY2NjY2NjY2NjY2NjY2NjY2NjY2NjY2NjY2NjY2NjY2NjY2NjY2NjY2NjY2NjY2NgAiIN3fAIAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAD//924r8oAAAAAAAAAAAAAAADKeTEODg4ODg4ODg4ODg4PD1SfAAAAAAAAAADeuK/KAAAAAAAAAAAAAAAAAAAAAAAAAABGkfKRRgEAAN3aygAAAAAAAAAAAAAAAAAAANqSRQ8ODg5UnwDKeTEODg4ODg4ODg4PVJ8AynkxDw8ODg5Eld0AAAAAu7WfNoduRQAAAAAA3rivygBhS0UAAAAAAAAAAAAiJSsAyq+43gAAAAAAAAAAAAAAAAAAAAAja7zyvGsjAQEAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAja7zyvGsjAQEAAAAAAAAAAAAAAAAAAAAAAAAARW6HNp+1uwAAAAD//92VRA4ORJXd//8AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA27SrxwBmUEkAAAAAAAAAAAAlKC0Ax6u02wAAAAAAAAAAAAAAAAAAAAAkKDkAAAAAAAAAAAAAAAAAAAAAOSgkAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAlcX1mAMertNsAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAABJmf///////////////////////7ZmADmO2v//////////////////////xnElAAAAANuPOkrTjtqZSbdnAQEBAQEBAQEBSpoAx3ImAQEBAUqaAMdyJgEBOo/a249f2H2ZSQAAt2cBAQFnt0mZtgBKZ7cAJUxVOZqDj9vbjzpKALbGcSUAAAAlccb/////////2o45ADmO2v//////////////////////////////////mUkAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAABJmf///////////////////////7ZmADmO2v//////////////////////xnElAAAlccb/////////////////2o45AGa2////////////////////mUkAAAAAAABJmbYASgFK047axnElAAAAALdnAQEBAQFKmgDHciYBAQEBAQEBATqP2wAAAAAAAAAAAAAAAAAAAAAAAADbj19yAI50AGcBAQEBOo/bAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAPCAJtOxABAADf7vuw1PMAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAJ9UDw8ODg4ODg4ODg4ODg4ODg4ODg4ODg5UnwAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAABASNIUTbKeZK6//8AAAAAAAAAAAAAAAAAAAAAAABGkfLy8vLy8vLy8vLy8vLy8vLx8axhADaHz/Hy8vLy8vLy8vLy8vLy8vLyvGvecVQArPGZUQA2h8/y8vLy8vLy8vLy8vLy8vLy8vLy8vLx8axhAAAAAAAAAAAAAAAAAAAAAAD/um8PVJ8ANofP8fHy8vLy8vLPhzYAAGF2aiIAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAC4cA8ODg4ODg4ODg4ODg4xecoAn1QODg4ORJXc3JVEDg4ODg4xecoAAAAAAAAAAGGs8fHy8vLPhzY2h8/y8vLx8axhAAAAAAABRpHxmQBnDw8ODg4x2nbxmUgA3pZEDkSW3iJrvPLxdtoxDw8PD1QArLtrIwFGkfLx8axhADaHz/Hy8pFFAAAAADaHz/Hy8vLy8vLy8vLx8c+HNgAAAAAAAAD/um8ODg4xecqfVDF5yp9UDw8Ob7oAAAAANofP8fHy8vLy8vLx8c+HNgAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAD19fXz8/Pz8/Pz8/Pz8/Pz8/Pz8/Pz8/Pz8/Pz8/Pz8/Pz8/Pz8/Pz8/Pz8/Pz8/Pz8/Pz8/Pz8/Pz8/Pz8/Pz8/Pz8/Pz8/Pz8/MCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAALuSecoAAMp5MQ9Fld3/AAAANofP8vLy8vLy8vLy8vLy8fGsYQAAAAAA//+6knnKAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAmbrvx8vLyrGEANofP8vLy8vLy8vLy8axhADaHz/Hx8vLyvGsjAAAAu7WfACslIwEBAAAAAAAAAAA2JiMAAAAAAAAAAAAAACMmNgAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAQEjJSsAn7W7AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA5KCQAAAAAAAAAAAAAACQoOQAAAAAAAAAAAAAAAAAAAAAAAAAAJXGhjgByjLcAAAAAANuPX3IAjqFxJQAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAANuPOgEBAQEBAQEBATqP2wAAAAAAAAAAAAC3ZwEBAQEBAQEBZ7cAAAAAAAAAAAAAANuPOgEBAQEBAQEBATqP2wAAAAAAAAAAAADbjzoBAQEBAQEBAQFntwAAAAAAAAAAt2cBATqPt486AQEBATqP2wAAAAAAAAC3ZwEBAQEBAQEBATqP2wAAAAAAAAAAAAAA2486AQEBAQEBAQFntwAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAC3ZwEBAQEBAQEBAQEBAQFKmgDHciYBAQEBAQEBAQEBAQE6j9sAAAAAAADbjzomq1XaxnElAABJmf///////////7ZmADmO2v////+2ZgA5jtr//8ZxAbSrx5pKAQEBAUqaAGa2ULABAUqaAJpKAQEmcscAx3ImJnLHAJpKAQEBOo/bAAAAAAAAAAAAt4xyAI6hcSUAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAC3ZwEBAQEBAQEBAQEBAQFKmgDHciYBAQEBAQEBAQEBAQE6j9sAAAAAALdnAQEBAQEBAQEBAQEBAQEBASZyxwCaSgEBAQEBAQEBAQEBAQEBAQEBOo/bAAAAAABJmdqOOcertNsAAAAAAAAAAABmtv////////////////+2ZgAAAAAAAAAAAAAAAAAAAAAAAAAAAADYtKsAjqFxJUmZ/////6EAXwEBAQEBZ7cAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAMVkRAAACAASURBVAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAQAAbTwREAkD+v3/jsLv+/3/AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAABhrPHx8vLy8vLy8vLy8vLy8vLy8vLy8vLyrGEAAAAAum8ODm+6AAAAAAAAAAAAAAAAAAAA///duK/KAACfipbeAAAAAAAAAAAAAAAAAAAAAAAAAAAA//+6bw4ODg4ODg4ODg4ODw9UnwDKeTEPDg4ODg4ODg4ODg5Eld3/AAAARpHykUYBAAAAynkxDg4ODg4ODg4ODg4ODg4ODg4ODg4ODw9UnwAAAAAAAAAAAAAAAAAAAN2WRVQArPHx8XbaMQ9wuv/dlUQOMa9Rz/GQRgEBAAAAAAAAAAAAAAAAAAAAAAAAAADKeTEPDg4ODg4ODg4ODg4OMXnKAMp5MQ8PDg4ODg4ODm+6AAAAAAAAAAAAAAAAAAAAAAAASJDx8vLy8vLy8vLy8vLyz4c2AGGs8vLy8rxrI97aymGs8vLyz4c2AAAAAAAAAACfVA8PDg4OMXnKynkxDg4ODw9UnwAAAAAAum8ODzGvUc/x8vLy8pFGASMj3ZJ5AIeZayMBAAAAAUaR8vLy8fHPJooPDm+6AAAAAAAAAAAAAAAAAAAAAAAAAADKeTEPDg4ODg4ODg4ODw8xecoAAAAAAAAAAAAAAGGsz4c2YazPhzZhrKxhAAAAAAAAAMp5MQ8PDg4ODg4ODw8xecoAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAgAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAP//3ZaKn2FhYQA2h8/xdtoxRZLaAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAN6Wip9hYWEAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADe29UAKyUiAAAAAAAAAAAAAAAAAAAAAAAAAAAAAMp5MQ4ODg4ODg4ODg9UnwAAAAAAAAAAAAAAAP//3dvVADYmIwAAAAAAAADd2soAAAAAAAAAAAAAAAAAAAAAAAAAytrdAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAALpvDg4ODg4ODg5vugAAAP//3ZVEDm+6/wAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAEVLYQDV293//wEBI2u88vK8ayMBAQAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADc2McAAAAAAAAAAAAAAAAAAAAAAAAAx9jcAAAAAAAAAAAAAAAAAAAAAAAA3NjHAJpKAQEBAQEmcscAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAALdnSpoAZn1xJQAAAAAAAAC3ZwEmq1Xa////////2o4AciY6j9sAAAAAt2cBStOO2v///////1DYj9sAAAAAAAC3ZwEmq1Xa////////2o4AciY6j9sAAAAAANuPjACh////////2o45mko6j9sAAAAAAAAAAADHckrYff/////GcSUAAAC3ZwEBStOO2v////////+hALS3AAAAAAAAAACaSl8Aof//////tmYAmko6j9sAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAOY7a////////////tmYAOY7a////////////tmYAAAAAAAAAAAC3jHLHAMdyJgEBAQE6j9u3ZwEBAQEBAQFKmgDHciYBAQEBSpoAAAAAAAAAACVxxv///7ZmAAA5jtqZSUmZ////2o45AGa2/////////////////////8ZxJQAAAAAAAAC3Z0qaZn1xJbdnAQEBAQEBAQEBAQEBAQEBAQEBAQEBAQE6j9sAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAOY7a////////////tmYAOY7a////////////tmYAAAAAAAAAAABJmf/////////////////////ajjkAZrb//////////////////////8ZxAI86AQEBAQEmcscAx3ImAQEBOo/bAAAAAAAAAAAAt2cBZ7cAAAAAAAAAAAAAAAAAJXHG/5lJAAAAACVxxv+ZcXHGxnElAAAAAAAAAAAlccb//////5lJAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACITBWQ3DxMKAwAAAAAAAEsqDDMcCAAAAJ/L8uTw+wAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA1dveAAAAAAAAAAAAAAAAAAAAAAAAAAAAAEaR8rtqANvVAGFLRQAAAAAAAAAAAAAAAAAAAADeuK/KNoeshwB5krr//wAAAAAAAAAAAAAAAAAAAAAAAAAAAAAANofP8fLy8vLy8vHxrGEANofP8fLy8vLy8vHxrGEAAAAAAAAAAAAAAAAAAAAAADaHz/Ly8vLy8vLy8vLy8vLy8vLy8vLy8vHxrGEAAAAAAAAAAAAAAAAAAAAjarzykUYBAQBFS2EAn1QPMXnKAGF2aiMBAQAAAAAAAAAAAAAAAAAAAAAAAAAAAAAANofP8fLy8vLy8vLy8vLy8vLy8vLy8vLy8vLy8vLy8vKRRgAAAAAAAAAAAAAAAAAAAAAAAAAAu28ORJXd/wAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACNrvLxrIwAAAAAAYazx8fLy8s+HNjaHz/Ly8vHxrGEAAAAAAEaR8vGsK3kxDw4ODg4ODg4ODlSfAMp5MQ4ODg4ODg4ODg4ODg8PMdp28fKRRgAAAAAAAAAAAAC4cA4Ob7sARZHy8vLy8vLy8vLy8vLy8vLy8vLy8pFGAQAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAFGkfLy8vLy8vLy8vLy8vHxz4c2AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAIAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAu5J5AIduSwAAAAAAAEWR8rxuJgDKeTEODg4ODg4ODg4ODg4PD1SfAAAAAADd2iuskEsAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA3drKNiYjAAAAAAAAAAAAAAAAAAAAAAAAAABGkfLy8vLy8vLy8vLy8vLy8vLyvGsjAQEAAAAAAAAAAAAAAAArJSIAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADYmIwAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAD/um9U1YfP8fHy8vKsAFQODg4PDzF5K6yRRgEAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAytrdAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADkoJAAAAAAAAAAAAAAAAAAAANuPOkqaAGa2/////////9qOOcdyJme3AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAJpKAQEBAQEBAQGwUP///5lJAAAAAAAAANuPg5pmtsZxJQAAAAAAACVxoY45x6u02wAA29jTAAAtKCUAAAAAAABJcXElAAAAANuPg5pmtsZxJQAAAAAAACVxoY45x6u02wAAAAAlcZlxJQAAAAAAACVxfWYAx9jcAAAAAAAAAAAAAGa2mUkAAAAAAAAAANuPg5oAZrbGcSUAAAAAAAAAJXFxSQAAAAAAAAAAOY6hcSUAAAAAAEl0jjkAx9jcAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAMdyJgEBAQEBAQEBAUqaAMdyJgEBAQEBAQEBAUqaAAAAAAAAAAAASZn/////////tmYAAAAASZn/////////tmYAOY7a/////////8ZxJQAAAAAAAAAAt2dKmjmOoXElANuPOgEBASZyxwCaSgEBAQEBAQEBAQEBAQEBAQEBZ7cAAAAA2486SpoAZlBJAABJmf//////////////////2o45AAAAAGa2xnElAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAMdyJgEBAQEBAQEBAUqaAMdyJgEBAQEBAQEBAUqaAAAAAAAAAAAAAAAAAADbjzoBAQEBAQEBAQEBJnLHAJpKAQEBAQEBAQEBAQEBOo/bAAAAACVxxv//////tmYAOY7a/7ZmAC0oJQAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAANuPOgEBAQEBAQEBAQEBAQEBAQEBAQEBAQEBAQEBAQFntwAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAABVLg1LKQx0QBIBAQAfEQVdMw4AAADK4ve42PQAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAABAUZLYcp5MQ8ODg4ODg4ODg4ODg4ODg4ODg4ODg4ODg4PDzF5AIduRQAAAAAAAAAAAAAAAAAAAAC7knnKYXZrRmt2YZ+Klt4AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAMp5MQ8ODg4ODg4PD1SfAMp5MQ8ODg4ODg4PD1SfAAAAAAAAAAAAAAAAAAAAAADKeTEODg4ODg4ODg4ODg4ODg4ODg4ODg4PD1SfAAAAAAAAAAAAAAAAAADakkUODg4ODg4PD7VL8fHy8vLy8vJLtQ8ODg4ODg5wuAAAAAAAAAAAAAAAAAAAAAAAACslIgAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAJ9UDw8ODg4PVJ8AAAAAAEVuhwB5krsAAAAAAAAAAAAAAAAAAAAAAADe29U2JiMAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAANofP8fHy8vKsYQAAYazy8vLy8vLy8vLy8vLx8c+HNgAAAAAAAAAAAADeloqfAMp5rybPrABUDw8ODg4ODg4ODg4ODg4ODg4ODg4ODg4ODg4Ob7oAAAAAAADd2gAmIwAAAAAAAAAAAAD/3ZVEDm+6//+6bw5Eld0BASNrvPIAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAu7XVh5lqIgAAAAAAAAAAAAAAAAAANofP8vLy8vLy8vLy8vLy8fGsYQAAAAAARpGRRQAAAAAAAAAAAAAAAAAAAAAA///dlUQODkSV3f/dloqfNlFIIwEBAAAAAAAA3tvVACslAJZFDg4ODg4ODg4ODg4ODg4ODg4ODg4ODg4ODkSV3f//AAAAAAAAAAAAAAAAAAAAAAAAACMmNgDK2t0AAAAAAAAAAAAAAN3aygAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAUaR8rxrIwEBAAAARpHy8vLy8vLy8pFGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACQoOQDH2NwAAAAAAAAAAAAAANzYxwAAAAAAAAAAAAAAAAAAAAAAANu0q8cAZraZSQAAAAAAAAAlcaGOOQCasLcAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAABmtv//////tmYAmkpntwAAAAAAAAAAANu0q8cAmkoBAQEBAQEBAQEBASZyxwDH2NwAACVMVTkAmkoBATqP2wAAAAAAAAAAANu0q8cAmkoBAQEBAQEBAQEBASZyxwDH2NwAAAAAAAAAt2cBAQEBAQEBAUqaAAAAAAAAAAAAAAAAADkoJAAAAAAAAAAAANu0q8cAZlBJAAAAAAAAAAAAAAAAAAAAAAAAAAAAAC0oJQAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA5jtr///////////+2ZgA5jtr///////////+2ZgAAAAAAAAAA2486AWe3AAAA29jTAC0oAI86AQEBAQEBAUqaAMdyJgEBAQEBAQEBOo/bAAAAAAC3Z0qaZrbGcSUAAAAlccb///+2ZgBmtv///////////////////////5lJAAC3ZyZyADk5AAAAAAAAAAAAAAAAAAAAAAAAt2cBASbYff////+ZSQAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAPoaNXAAAIABJREFUAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA5jtr///////////+2ZgA5jtr///////////+2ZgAAAAAAAAAAAAAAAAAAAAAAOY7a/////////////////////////////7ZmAAAAAAAAAAAAAAAAAAAAAAAAAAAAALewmjkoJAAAAAAAAAAAANvY0wAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAZrb////////////////////////////ajjkAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAw9/3AAAAKBYGVS4Ocj4RBgMB7/b9lcbwAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAARpHy8vLy8vLy8vLy8vLy8vLy8vLy8vLyz4c2AGGs8vLy8rxrIwEBAAAAAAAAAAAAAAAA/92Vip82h25FAAAARW6HAHlnld3/AAAAAAAAAAAAAAAAAAAAAAAAAAA2h8/x8vLy8vLy8fGsYQA2h8/x8vLy8vLy8fGsYQAAAAAAAAAAAAAAAAAAI2u88c+HNgAAYazx8vLy8vLy8vLy8vLy8vLy8vLy8vK8ayMBAAAAAAAAAAAAJm678vLy8vLyrGGfVA8PDkSV3f//RpHy8vLy8vLykEgAAAAAAAAAAAAAAAAAAN7b1QCfVA8PDg4ODg4ODg4ODg4ODg4ODg4Ob7r/AAAAAAAAAAAAAAAAAABhrPHx8vLy8axhAAAAAAAAImqZh9VUb7r/AAAAAAAAAAAAAAAAAAAAAAAAynkxDg4ODg4ODm+6AAAAAACfVA8PDg4OMXnKynkxDg4ODw9UnwAAAAAAAAAAAAAAAAAAAAAAum8OVJ8AAJ9UDg4ODg4ODg4ODg4OcLsAAAAAAAAAAAAAum8OMdorYQA2h5lqI0aR8vLy8vLy8vLy8fHPhzYAYazx8vLy8vLy8vLy8pFGAAAAAJ9UVAB2aiIAAACfVFSfAAAAu5J5ygCfVA8PVJ8AynkxDg4ODg4OAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAgAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAEaRvGsjAQAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAynkxDw8PMXkrrPK8ayK7knnKAMra3QAAAAAAAAAAAN3ayjYmIyNrvPHxz4c2AGGs8fLy8vLy8vLy8s+HNgAANoeZaiMBAQAAAAAAAAAAANXb3gAAAAAAAAAiSFE2ANXb3gAAAAAAAAAAAN7b1QA2UUgiAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA2JiMAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAlTFU5ANPY2wAAAAAAAAAAANvY0wA5VUwlAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAEmZtmYAmkpntwAAAAAAAAAAAAAAAGa2/////////////////////5lJAAAAJXHG///ajjnHciYBAQE6j9sAAAAAAAAAAGa2/////////////////////5lJAAAAt2cBAUqaZrb///////+2ZgAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA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AAAAD/3ZVEDg4ODg4ODkSWI5Dy8vLyvGsjAQEAAAAAAAAAAAAAAAAAAAAAAADeuK/KYUtGAQEAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAABRpHykUYAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAABI2u88pFGAQEAAAAAAAAAAAAAAAABAUaR8rxrIwEAAAAAAAAAACZuu/HykUYASJnx8Uu1Dw8PDzHadvHykUYAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA3tvVNlFIIgAAAAAAAACfVA8ODg4ODg4ODkSV3f8AAAAAn1QODg4ODg4ODg4PVJ8AAFFRK3kxDw8ODg5UnwDKeTEODg4ODg4AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAynkxDg4ODg4ODg4ODg4ODw9UnwAAAAAAAAAAAAAAAAAAAAAAAUaR8vLykUYBAAAA/7pvDzF5K6zxkUYjapmHAHkxb7r/ALuSeQCHbkUAAAAAAAAA/7pvVJ8AADYrJktRYQAAynmSuv//AAAAAAAAAAAAAAAARUthANXb3f//AAAAAAAAAUaRz4cAeTEPDg4ODzF5K6zxkUYBAAAAAAAjJjYAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA///duK/KNiYjAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAEmZ2o4AciYBAQEBASZyLbb/mUkAAAAAAAAkKDkAAAAAAAAAAAAASZn/2lWrJgEBAQEBAQEmci22/8ZxJQAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAEl0jjkAmoOP2wAAAABJdI45x3ImZ7cAAAAAAAAAANuPOme3AAAAANuPZ4/bAAAAAAAAAAAAAAA5KCQAAABJdI45x3ImZ7cAAAAAAAAAANuPOme3AAAAAAAAAADH2NwAAAAAANuPX3LHAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAABJdI45x3ImZ7cAAAAAAAAAALdnZ7cAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA2486AQEBAQEBAQEBAQEBAQFKmgDHciYBAQEBAQEBAQEBAQEBATqP2wAAAAAASZm2LZqaAI50SQBJmf///////////7ZmADkS/CtxAAAgAElEQVSO2v/////////////GcSUAAAAAAAAAt2cBAQEBATqP27eMcgCOdJmZ2iiDAQFnZ2cBAUoAtv+ZSQAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA2486AQEBAQEBAQEBAQEBAQFKmgDHciYBAQEBAQEBAQEBAQEBATqP2wAAAAAAAAAAAAAAx3ImAQEBAQEBAQEBAQEBAQEBAQEBAQEBAUqaAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAABJmf+ZJI86Spo5OdNKAQEBZ7dJmf/GcSUAAAAAAAAlccb/mUkAAAAAALdnJnLHAMdyJme3AAAAAAAlccb/mUkA29jTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA8vj+mMjw//8A3Oz6pc7zAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA///dlUQODm+6AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA3ZVEMXkrrLtqIwEBAAAAAAAAAAAAAQEjapmHAHkxb7r/AAAAAAAAAAAA3ZVEDg4ODg4ODg4ODg4ODw9UnwDKeTEPDg4ODg4ODg4ODg4ODkSV3f//um8OMa9Rz/G7ayMBAUaRmQBnDg4ODkSVlW8ODg4OD7VL8vLyvGsjAAAAAAAAAAAAAAAAAAAAASNrvPLy8vLy8c9RrzEPDg4ODg4ODkSV3f//AAAAAAAAAAAAAAAA//+6knnKYUtFAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADdlUQODg4ODg4ODg4OMXnKynkxDg4ODg4ODg4ODkSV3f//AAAAAAAA3ZZFDg4OMTExDw+1S/Hx8vLyS7UPDg5Elt4AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAu5J5ysp5MXC7AAAAAAAAYazx8vLy8vLy8vK8ayMBAAAAAGGs8vLy8vLy8vLy8axhACsla5Hy8vLy8vLyrGEANofP8vLy8vLyAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAABAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADaHz7xrIwAAAAAAAAAAAP//unAPigAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAN2VRDF5AIfP8WsjAQ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AAAAAASZnGcSUAAAAAAAAAALdnAQEBAQEBAQEBAQEBAUqaAMdyJgEBAQEBAQEBATqP2wAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAgAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAANuPOgEBJnLHAJpKAQE6j7ePg5o5jtr//////////////////////////5lJALdnAQEBJnLHAJpKAQEBZ7QAADmO2v////+2ZgBmtv///////9qOOQAAAAAAJXHG////////2o45OY7a//////////////////////+2ZgAAZrb////////GcSUAAAAA24+DmjlVTCUAAAAAt7CaAJpKAQEBAQFKmgDHciYBAQEBAQEBAWe3AAAAAADbjzpKALbGcSUAAAAASZm2LXJfj9sAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACVxxv///////////7ZmADmO2v///////////////////////////////8ZxJSVxxv///////////////////////////7ZmADmO2v////////////////+ZSQAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACVxxv/////////////////ajjkAOY7a//////////////////+ZSQAAANuPOgEBAQEmcscAmkoBAQEBOo/bAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAJXHG////////2o45OY7a//////////////////////+2ZgAAZrb////////GcSUAAAAA24+DmjlVTCUAAAAAt7CaAJpKAQEBAQFKmgDHciYBAQEBAQEBAWe3AAAASZn////////////////////ajjkAOY7a////////////////////mUkAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAASZn/////////////////tmYAOY7a////////////////xnElAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAEmZ/////8ZxJAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAANu0q8dmUEkAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAANuPOgEmq1Xa//+2ZjmO2v////////////////+2ZgAAADmO2plJAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADbjzoBJnIttv///8ZxJduPOgFKmma2/5lJAAAAAAAAAAAAAAAAAAAAAAAAAAAAAABJmdqOAHJKcgCOoXElAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAABJmf////////////////+2ZgA5jtr////////////GcSUAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACIg3d8AgAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACVxxv//2o45AGa2//+hAINyLbbGcSUAAAAA2486AWe3AAAAAAAAAAAAAAAAAEmZ////2o45AGa2////mUwAAMdyJgEBAQFKmgCaSgEBAQEBASZyxwAAAAAAAAAAAAAAAAAAJSgtx6u02wAAAAAAAAAAAAAAAAAAALewmgBmUEkAAAAAAAAAAAAAAAC3jHLHAAAAAAAAANuPg5pmtv////////+2ZgA5jtr//////////5lJAAAA249fcscAmkoBAQEBAQEBAQFKmgDHcl+P2wAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAMdyJgEBAQEBAQEBAQEBAQEBATqP2wAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAANuPOgEBAQEBAQEBAQEBAQE6j9sAACQoOQAAAAAAAAAAANuPOgFntwAAAAAAAAAA2486AQEBAQEBAQEBAQEmcscAmkoBAQEBAQEBAQEBAQEBAWe3AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACVxxv/////ajjkAZrb/////xnElAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAJSgtx6u02wAAAAAAAAAAAAAAAAAAALewmgBmUEkAAAAAAAAAAAAAAAC3jHLHAAAAAAAAANuPg5pmtv////////+2ZgA5jtr//////////5lJAAAAAAAA2486ATqP2wAAAAAAAAAAAAAAAAAAAAAAAAAAALdnATqP2wAAAAAAAAAAAAAAAAAAAAAAAA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