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    "# Laboratory Work 1\n",
    "## Topic: Jupyter Notebook Basics\n",
    "## Goal: Learning the specifics of using Python language in Jupyter Notebook."
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    "1. **Theoretical Information**\n",
    "You can refer to the theoretical background in Lecture 1 - \n",
    "[Lecture 1](https://github.com/svniko/data_processing/blob/main/Lectures/Lecture_1.pdf)\n",
    "\n",
    "2. **Assignments**\n",
    "- Install Anaconda.\n",
    "- Create an environment for Python 3.\n",
    "- Change the Jupyter start-up folder.\n",
    "- For the assigned country, format information using **Markdown** and **HTML** as per the instructions.\n",
    "- Implement an algorithm based on the individual task from Table 1."
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      "### Jordan Country Profile\n",
      "\n",
      "<div style=\"border: 3px solid #000000; padding: 15px; background-color: #f0f8ff;\">\n",
      "\n",
      "## Area and Population\n",
      "\n",
      "- **Area**: <u>89,342 square kilometers</u>\n",
      "- **Population**: ~10.2 million (2023)\n",
      "\n",
      "## Government\n",
      "- **Type**: *Constitutional Monarchy*\n",
      "- **Capital**: **Amman**\n",
      "\n",
      "## Celebrities\n",
      "1. **King Abdullah II** – The reigning monarch.\n",
      "2. **Queen Rania** – Global humanitarian and philanthropist.\n",
      "\n",
      "## Jordan Flag\n",
      "\n",
      "<div style=\"border: 2px solid #000; padding: 10px; background-color: #e0ffe0;\">\n",
      "   <svg width=\"300\" height=\"200\">\n",
      "   <rect width=\"300\" height=\"100\" style=\"fill:black;\" />\n",
      "   <rect y=\"100\" width=\"300\" height=\"100\" style=\"fill:white;\" />\n",

```
    "    <polygon points=\"0,0 150,100 0,200\" style=\"fill:red;\" />\n",

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   "### Table of Information\n",

   "\n",

   "| **Category**        | **Information**                    |\n",

   "|-----------------------|-------------------------------------------------|\n",

   "| <span style=\"color:blue;\">**Area**</span> | 89,342 sq km                    |\n",

   "| <span style=\"color:green;\">**Population**</span> | ~10.2 million    |\n",

   "| <span style=\"color:red;\">**Capital**</span> | Amman                    |\n",

   "| **Natural Wonders**    | Petra, Wadi Rum, Dead Sea          |\n"

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"Primes between 6 and 24: [7, 11, 13, 17, 19, 23]\n"
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 "# Function to check if a number is prime\n",
 "def is_prime(n):\n",
 "   if n <= 1:\n",
 "   return False\n",
 "   for i in range(2, int(n ** 0.5) + 1):\n",
 "   if n % i == 0:\n",
 "   return False\n",
 "   return True\n",
 "\n",
 "# Function to find all primes in the interval [a, b]\n",
 "def find_primes_in_interval(a, b):\n",
 "   primes = []\n",
 "   for num in range(a, b + 1):\n",
 "   if is_prime(num):\n",
 "   primes.append(num)\n",
 "   return primes\n",
 "\n",
 "# Test cases for the prime number finder\n",
 "def test_task_6():\n",
 "   print(f\"Primes between 3 and 15: {find_primes_in_interval(3, 15)}\")\n",
 "   print(f\"Primes between 6 and 24: {find_primes_in_interval(6, 24)}\")\n",
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 "# Running the test cases\n",
 "test_task_6()\n"

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    "<h4><b>Conclusion:</b> During this laboratory work, I learned how to work with Jupyter Notebook, format content using Markdown, and implement algorithms in Python. Specifically, I created a function to find prime numbers in a given interval.</h4>"
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