# Project Optimization Instructions

## Prerequisites

1. System Requirements  
 - Python 3.7 or later  
 - Git installed on your machine  
 - A modern web browser for interacting with the frontend  
 - Internet connection for dependency installation  
  
2. Dependencies  
 - Ensure `pip` is installed and up-to-date.

3. **Make sure strategy api is running**

## Switching to strategy\_optimization Folder

1. Open a terminal (or command prompt) on your machine.  
2. Navigate to the `strategy\_optimization` directory:  
 ```bash  
 cd Sagar\_Backend/time\ based\ strategy/strategy\_optimization  
 ```

## Installing Dependencies

1. Ensure you are in the `strategy\_optimization` directory.  
2. Install the required dependencies using `pip`:  
 ```bash  
 pip install -r requirements.txt  
 ```

## Running the Optimization Scripts

### Step 1: Run optimization\_tables.py (First-Time Setup Only)

1. If this is your first time using the optimization module, execute the following command:  
 ```bash  
 python optimization\_tables.py  
 ```  
2. If this is not the first use, skip this step.

### Step 2: Run generateKey.py

1. Execute the following command to generate necessary keys:  
 ```bash  
 python generateKey.py  
 ```

### Step 3: Run retryOptimization.py

1. Execute the following command to retry optimization tasks:  
 ```bash  
 python retryOptimization.py  
 ```

## Switching to strategy\_backtest Directory

1. Navigate to the `strategy\_backtest` directory:  
 ```bash  
 cd ../strategy\_backtest  
 ```

## Running runOptimization.py

1. Execute the following command to initiate the optimization process:  
 ```bash  
 python runOptimization.py  
 ```

## Using the Frontend for Optimization

1. Open your web browser.  
2. Navigate to the frontend interface. This might be served locally or from a specified URL.  
 - If served locally, confirm the port number and visit: `http://127.0.0.1:<port>`  
 - Replace `<port>` with the correct port number used by the frontend application.  
  
3. Use the frontend interface to configure and execute the optimization process.

## Notes

- Ensure all components are executed in the correct sequence for the optimization to function properly.  
- Logs from the terminal can help diagnose issues during runtime.

## Troubleshooting

- \*\*Issue:\*\* Dependency installation fails.  
 - \*\*Solution:\*\* Verify Python and pip versions and try installing dependencies individually using:  
 ```bash  
 pip install <package\_name>  
 ```  
  
- \*\*Issue:\*\* Scripts fail to start.  
 - \*\*Solution:\*\* Check for missing files or incorrect paths and ensure all scripts are executed from the correct directory.  
  
- \*\*Issue:\*\* Frontend is inaccessible.  
 - \*\*Solution:\*\* Verify the URL or port and ensure no other applications are using the same port.