COMP7940 Cloud Computing
Lab 1: Python Basic and GitHub Setup

Name: _____
Student ID: _____
GitHub: _____

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1. Clone Command

```
mkdir -p <path>/hkbu
cd <path>/hkbu
git clone git@github.com:<username>/comp7940-lab.git
```

Note: Replace `<path>` and `<username>` with your actual values.

2. Screenshot of GitHub Repository with `hello.py`

Save your screenshot as `lab1/github_hello.png` (recommended), then compile this PDF.

Screenshot missing. Please add `lab1/github_hello.png` and recompile.

3. Why SSH Keys Are More Secure Than Passwords

- SSH uses public-key (asymmetric) cryptography: only the public key is uploaded; the private key stays on your computer.

- The private key is never sent over the network, which reduces the risk of credential interception.

- SSH keys can be protected with a local passphrase; even if the key file is copied, it is harder to use without the passphrase.

- Keys are resistant to password reuse and common phishing attacks because there is no typed password to steal.

- Keys can be revoked/rotated per device without changing other devices' access.

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4. Python Code (Exercises 1–3)

Exercise 1–3 Solution File

```python
def print_factor(x: int) -> None:
    for i in range(2, x):
        if x % i == 0:
            print(i)


def main() -> None:
    # Exercise 1: Factors
    x = 52633
    for i in range(2, x):
        if x % i == 0:
            print(i)

    # Exercise 2 & 3: Function + list iteration
    l = [52633, 8137, 1024, 999]
    for n in l:
        print(f"Factors of {n}:")
        print_factor(n)


if __name__ == "__main__":
    main()
```

hello.py

```python
def main():
    print("Hello World")


if __name__ == "__main__":
    main()
```