## Brief Overview of the project

The Project is about find raising using blockchain technology.We have created 2 users who have amount of 5000 in their wallet.Users can donate money to 2 Organisations and view their transaction history.

## Steps to run the code

1. Install latest Java Development Kit (JDK) and configure the environment variables.
2. Install eclipse and configure it to compile Java
3. Download Bouncy Castle Jar from <https://www.bouncycastle.org/download/bcprov-jdk15on-159.jar> .
4. Import it on eclipse. Open **Windows** >**preferences** in the Eclipse menu, and navigate to the **Java**>**Build path** > **User Libraries** tab. Click new and enter a new **User Library name**: like “*bouncycastle\_lib*” and hit ok. With “*bouncycastle\_lib*” selected press **Add External JARs.**Click **Apply and Close.**
5. Also add the class path for the external jar.
6. Go to File->Open Projects from file System->Directory->choose the src folder.
7. Use the run Button to run the code

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## 4 Functions as in CMS are implimented as follows

## CreateBlock- implimented as addBlock() in class noobchain.java

## VerifyTransaction()- implimented as zkpdiscretelog() as in noobchain.java to check id numbers of user in each transaction

## MineBlock()- implimented as mineBlock() as in Block.java.We calculate the hash while varying the nonce(number used once) till we get a hash with target number of difficulty in the beginning of the string

## ViewUser()- It is implimented as in the user driven menu.A user would press 3 in initial menu to view user history.

## Information regarding ID of user 1,2 for zero knowledge proofs

For our zero knowledge proof we assume p=11 and g=2 as its generator.

USER 1

We have assumed x(ID) is 4 .You need to compute and input the corresponding h,s values in the zero knowledge proof.

USER 2

We have assumed x(ID) is 6.You need to compute and input the corresponding h,s values in the zero knowledge proof.

## Team members

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