

# Pre-Class Discovery: Programmable Money

Digital Finance – BSc Course

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Complete before class. No prior knowledge required. Work alone or in pairs.

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## Activity 1: Program Your Salary

Your monthly salary is \$5,000. Instead of receiving it as a lump sum, imagine the money is **programmable**—you can attach rules that execute automatically.

- (a) Design a set of programmable rules for your salary. Fill in:

Destination	Amount	% of salary	Condition / time lock
Rent			
Savings			
Investments			
Daily spending			
Other			

- (b) Draw a simple flow diagram: Employer → Smart Contract → your destinations.

- (c) What advantage does this have over a standing order at your bank? What could go wrong?

## Activity 2: The Relief Calculator

A government distributes \$10 million in disaster relief.

	Cash distribution	Programmable tokens
Leakage (fraud, admin)	30 %	5 %
Reaches victims	\$7 M	\$9.5 M

- (a) Calculate the dollar savings from using programmable tokens instead of cash.
- (b) The programmable tokens restrict spending to “approved essentials” (food, medicine, shelter). A family needs to buy medicine that is not on the approved list. What happens? Is this a bug or a feature?

- (c) Propose a design that preserves the anti-fraud benefits while allowing some flexibility for edge cases.

### Activity 3: The Birthday Gift Debate

A programmable welfare payment expires after 30 days and can only be spent on government-approved essentials. A parent wants to buy a birthday gift for their child, but the token won't allow it.

- (a) **Side A—Efficient Policy:** Write 3 arguments supporting programmable restrictions on welfare payments.
- (b) **Side B—Authoritarian Control:** Write 3 arguments against programmable restrictions on welfare payments.
- (c) Which side do you find more convincing? Why?