Control Flow Test for Update Goals Activity ()

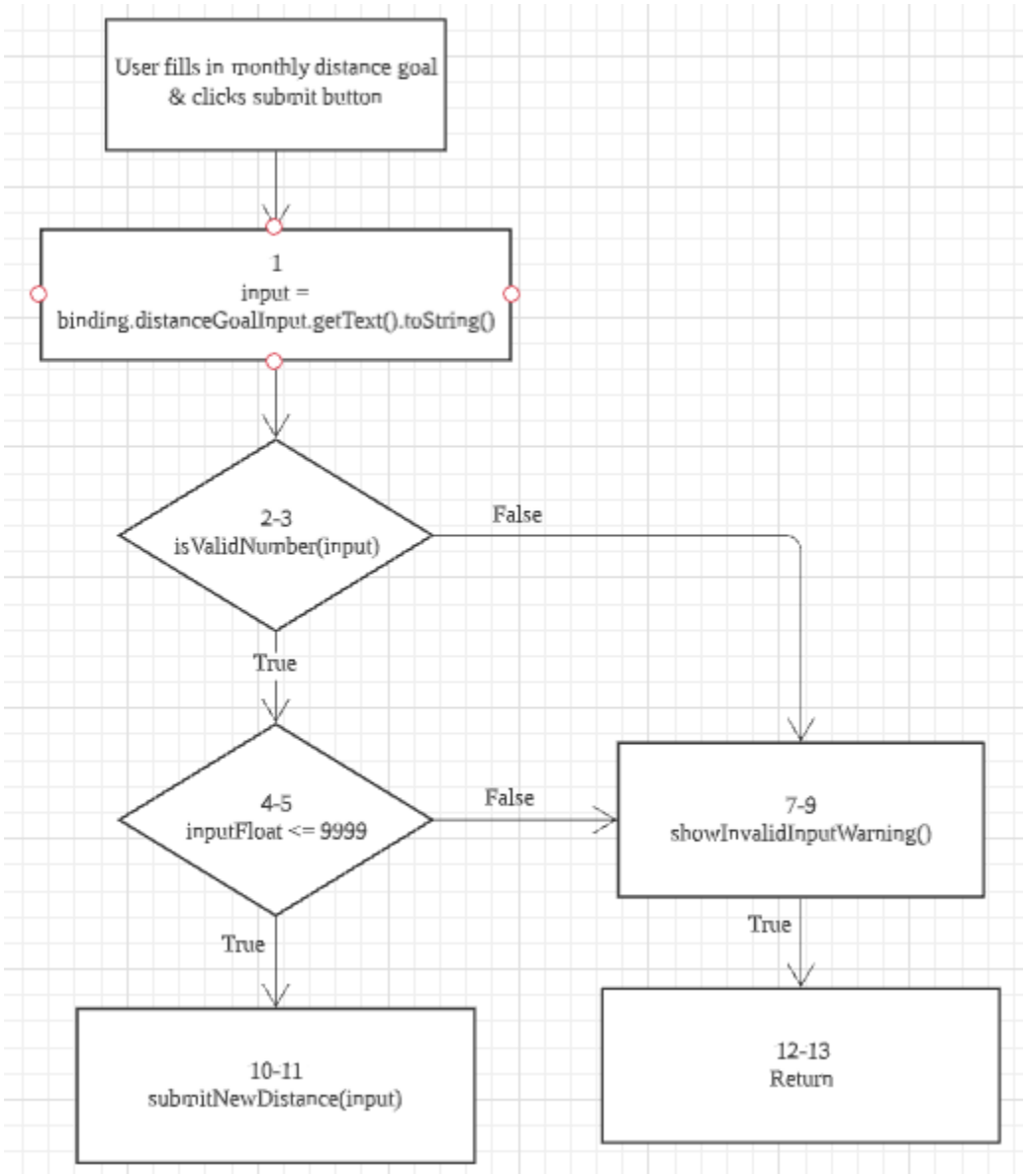
Update Distance Goal

Code

```
        public void onClick(View view) {
1                   String input = binding.distanceGoalInput.getText().toString();
2                   boolean valid = isValidDistance(input);
8                   if (!valid) {
9                   showInvalidInputWarning();
10                  } else {
11                  submitNewDistance(input);
12              }
13              return
                }
        }

        private boolean isValidDistance(String input) {
3           if (isValidNumber(input)) {
4               float inputFloat = Float.parseFloat(input);
5               if (inputFloat <= 9999) return true;
6           }
7           return false;
        }
```

Control Flow Graph



Cyclomatic Complexity

Taking Cyclomatic complexity: |decision points| + 1 = 2 + 1 = **3**

Test Cases

I. User fills in valid number and distance
II. User fills in valid number and invalid distance
III. User fills in invalid number and distance

Basis Paths

I. Path 1 (Baseline): 1, 2-3, 4-5, 10-11
II. Path 2: 1, 2-3, 4-5, 7-9, 12-13 (User fills in valid number and invalid distance)
III. Path 3: 1, 2-3, 7-9, 12-13 (User fills in invalid number and distance)

Test Results

Path	**Result**
1	Pass
2	Pass
3	Pass

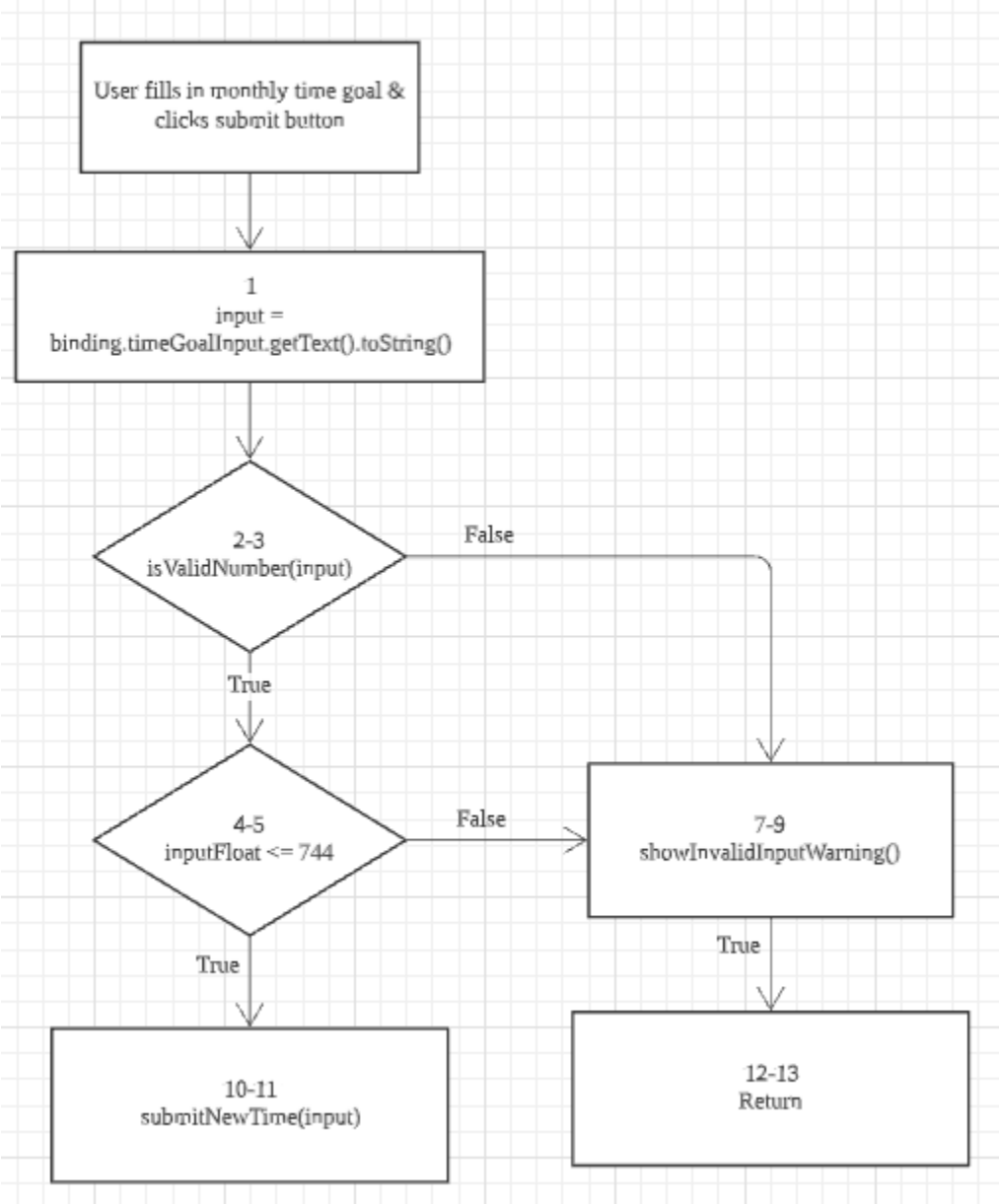
Update Time Goal

Code

```
        public void onClick(View view) {
1                       String input = binding.timeGoalInput.getText().toString();
2                       boolean valid = isValidDistance(input);
8                       if (!valid) {
9                       showInvalidInputWarning();
10                      } else {
11                      submitNewTime(input);
12              }
13              return
        }

        private boolean isValidTime(String input) {
3               if (isValidNumber(input)) {
4                   float inputFloat = Float.parseFloat(input);
5                   if (inputFloat <= 744) return true;
6               }
7               return false;
        }
```

Control Flow



Cyclomatic Complexity

Taking Cyclomatic complexity: |decision points| + 1 = 2 + 1 = **3**

Test Cases

IV. User fills in valid number and time
V. User fills in valid number and invalid time
VI. User fills in invalid number and time

Basis Paths

IV. Path 1 (Baseline): 1, 2-3, 4-5, 10-11
V. Path 2: 1, 2-3, 4-5, 7-9, 12-13 (User fills in valid number and invalid time)
VI. Path 3: 1, 2-3, 7-9, 12-13 (User fills in invalid number and time)

Test Results

Path	**Result**
1	Pass
2	Pass
3	Pass