Mobile app for providing direct access to market for farmers

**Code snippet:**

**1.Firebase Authentication Setup**

FirebaseAuth mAuth = FirebaseAuth.getInstance();

// Register new user

public void registerUser(String email, String password) {

mAuth.createUserWithEmailAndPassword(email, password)

.addOnCompleteListener(this, new OnCompleteListener<AuthResult>() {

@Override

public void onComplete(@NonNull Task<AuthResult> task) {

if (task.isSuccessful()) {

// Sign in success

FirebaseUser user = mAuth.getCurrentUser();

} else {

// If sign in fails, display a message to the user.

}

}

});

}

**2.Adding a Product Listing**

FirebaseFirestore db = FirebaseFirestore.getInstance();

public void addProduct(String productName, double price, String description) {

Map<String, Object> product = new HashMap<>();

product.put("name", productName);

product.put("price", price);

product.put("description", description);

db.collection("products")

.add(product)

.addOnSuccessListener(new OnSuccessListener<DocumentReference>() {

@Override

public void onSuccess(DocumentReference documentReference) {

// Product added successfully

}

})

.addOnFailureListener(new OnFailureListener() {

@Override

public void onFailure(@NonNull Exception e) {

// Handle error

}

});

}

**3. Search functionality**

public void searchProducts(String query) {

FirebaseFirestore db = FirebaseFirestore.getInstance();

db.collection("products")

.whereEqualTo("name", query)

.get()

.addOnCompleteListener(new OnCompleteListener<QuerySnapshot>() {

@Override

public void onComplete(@NonNull Task<QuerySnapshot> task) {

if (task.isSuccessful()) {

for (DocumentSnapshot document : task.getResult()) {

// Display the products

}

} else {

// Handle error

}

}

});

}

**4.Real Time Managing:**

**DatabaseReference messagesRef = FirebaseDatabase.getInstance().getReference("messages");**

**public void sendMessage(String senderId, String receiverId, String messageText) {**

**String messageId = messagesRef.push().getKey();**

**Message message = new Message(senderId, receiverId, messageText);**

**messagesRef.child(messageId).setValue(message);**

**}**