**Functional Requirements**:

**1. Monitoring Heart Activity**:

* The band should always track the wearer's heartbeat using a light-based sensor.
* An alert is necessary if the heart rate goes beyond a set limit, showing potential strain.

**2. Tracking Oxygen Levels**:

* The band needs to check the amount of oxygen in the user's bloodstream.
* Alerts should be sent if the oxygen count falls under a safe limit.

**3. Personal Information Entry**:

* Users can input details such as age, weight, height, and workout aims like losing weight, bulking up muscles.
* Using this info, the band or its paired app should suggest tailored exercises.

**4. Instant Responses**:

* Vibrations or on-screen notifications should be given by the band, depending on heart activity and oxygen counts.
* Messages like "Ease up", "Time for a short rest", or "Push just a bit harder" could be displayed.

**5. Exercise Time Keeper**:

* An in-built clock in the band should measure each exercise period.
* It's essential for users to have control over this clock: starting, pausing, as needed.

**6. Syncing with Smartphone App**:

* Bluetooth should link the band with an app on the phone.
* This app is meant to present a thorough breakdown, graphics, and past records sourced from the band.

**Non-Functional Requirements**:

**1. User Experience**:

* New users should find the band's layout natural and easy, with little to no help.
* The app must offer smooth browsing with a good design.

**2. Powering the Device**:

* In typical conditions, the band's battery should last a minimum of two days.
* A warning is vital when the battery is about to run out, specifically under 20%.

**3. Craftsmanship and Endurance**:

* Resistance to water and sweat is a must for the band.
* Regular fitness sessions shouldn't wear it out; it needs to be sturdy.

**4. Safeguarding User Information**:

* Encryption is essential for any user information in either the band or app.
* Adherence to data safeguarding regulations is crucial, guaranteeing that no data gets shared unless the user approves.

**5. App Compatibility**:

* The software working with the band should be operational on Android and iOS.

**6. Quick Feedback**:

* The band has to provide instantaneous advice, free from any noticeable holdup.
* The app must show the band's data promptly without undue waiting times.

**7. Style**:

* The design of the band should be contemporary and attractive to the intended users.
* Multiple options in terms of colors and designs would be a nice touch for users.