# Human Computer Research

**HCI issues include** colour theory; human perception; haptic/tactile technology; gender / age /cultural / special needs issues; speech recognition / generation; graphic design; cognitive issues such as memory, learning and problem solving; design of fonts; navigation; feedback to the user; usability; aesthetics; ethical issues; and interface problems.

for instance, a **webpage/site**, a **database**, an interactive sketch tool, a distance learning facility, or a GUI. A more challenging goal is to implement a mobile interface such as for the Android operating system for touchscreen devices.

## Early Deliverables

1. A text-based (non-interactive) monochrome webpage

2. A colourful website including images and navigation

3. GUI built with buttons etc.

4. Report: about 15 pages including sketches of designs.

## Final Deliverables

1. Design and implement a more advanced interface(s)

2. Complete report

There are six individual principles commonly associated with gestalt theory: **similarity**, **continuation**, **closure**, **proximity**, **figure/ground**, and **symmetry & order**

# Potential Ideas

## Idea 1: Mental Health Online Journal

**Motivation: Effective interaction, senses**

**Audience:** ages (18 -25) Research when mental health affects a person?

**Technologies:** React, HTML, CSS, **Node.js, , NoSQL?**

**HCI Issues I tackle and solve: aesthetics, design of fonts, cultural, feedback to the user**

**Interfaces:**

Home page

Login page – privacy to own thoughts

Settings - Daily/Weekly/Monthly Affirmations and mood

Goal Page – allows to set goals

Journal – allows you to set a date, automatically sets to current’s day, a place to write thoughts

Reach out to assistance Page – to go seek help

## Idea 2: How children learn shapes/alphabet?

**Motivation:**

**Audience:** ages (1-3) Research how old they can identify basic shapes?

**Technologies:** React, HTML, CSS, **Node.js**

**HCI Issues I tackle and solve cognitive issues (memory), aesthetics, design of fonts, feedback to the user**

**Interfaces:**

Home Page – introducing what the site hopes to achieve

Menu Page – different simple topics, i.e., learning alphabet or shapes

?? Settings page – monochrome settings, patterns

Shape page – Images of different shapes, that could be hovered on to everyday objects

Puzzle/Paint page – draw shapes and match to images?? **Something similar**

Quiz menu:

Quiz page – testing their memory on basic shapes due to colours association.

## Idea 3: TV Show Database

**Motivation:**

**Audience:**

**Technologies:** **React, HTML, CSS, Node.js**

**HCI Issues I tackle and solve:**

# References

<https://www.toptal.com/designers/ui/gestalt-principles-of-design#:~:text=There%20are%20six%20individual%20principles,order%20(also%20called%20pr%C3%A4gnanz)>.

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