**APPENDIX A – Project Examples**

**SCENARIO 1: Health Tracker**

# 1. **OVERVIEW**

A big insurance company is at the forefront of the UK personal health insurance market. It wants to develop new products which leverage both emerging technology and societal trends and in particular wants to explore the idea of a “health tracker” application. The Health Tracker aims to help inform users of basic health information as well as enable them to track their diet and fitness regime with simple goals and trending over time to see results. Initially this application is not tied to an insurance product offered by the insurance company but should support integration at a later stage if successful. The insurance company wants you to develop a solution which enables this idea to be explored as a business experiment.

# **2. SOLUTION DESCRIPTION**

The “health tracker” solution must support the creation of a basic user profile which enables a user to record key information about them. This includes physical details such as height, weight and other information required to generate a comparison of user to a healthy norm.

In addition, basic information will need to be captured including real name, a username (which can be selected by the user but must be unique) and an e-mail address which the system should validate whether it is in a valid format. The system will use the captured e-mail address to enable e-mail communications. If this initial business experiment is successful the e-mail communication component may be augmented or replaced with instant messaging or other rapid communication mechanisms such as those enabled through social network platforms. The social network capability may be extended at a later date to enable sharing of goals and membership of groups.

Three central capabilities are required by the solution. The capability to:

1. Record on-going lifestyle details such as exercise taken and diet

2. Ability to set goals

3. And view a history of this information

The basic workflow of the health tracker solution is outlined below:

**A.** **User registration**

1. Enter a user name

1.a.i. If username already exists in the system then the user is prompted for a new user name

2. Capture the users real name

3. Capture their email address and validate it is in a correct format

3.a.i. If validation fails prompt for a correction before allowing registration to proceed

4. Collect additional personal information required to provide initial health overview, e.g. ideal weight, BMI, …

4.a.i. Height and weight are key factors but the solution may require additional information identified by the development teams to support their health analytics / algorithm

5. If the information collected suggests a deviation of the norm provide appropriate feedback

5.a.i. This could include the capture of some initial goal details, such as a target weight

**B.** **In use the solution provides two user data capture paths, exercise and diet**

1. Exercise capture supports the selection of a type of exercise and the duration and/or distance for a specific exercise session

1.a.i. Type of exercise is a defined set of activities

2. Diet capture supports the selection of food and drink together with a value and the meal

2.a.i. Food and drink types from a list with the ability of the end user to add custom items to the list

2.a.ii. The value captured is a calorific count

2.a.iii. The meal is a defined set of meal types

**C.** **Goal Capture and Reporting**

1. Goals are captured, recording a target such as a weight and a date

1.a.i. Optionally the creation of more complex goals, such as running a set distance under a set time

1.a.ii. If a goal is already met, advise the user and suggest a new goal

2. When the solution starts or is running using the system time it checks if any goals have exceeded target dates

2.a.i. A message is displayed stating goal met or not and asks if a new goal is to be set

2.a.ii. New goal set from C.1 step

3. Regular capture of weight is required to identify if a weight target has been met

3.a.i. Optionally this may be user configurable

**D.** **User Groups**

1. Users can create and join groups to share progress towards targets

1.a.i. Groups can be created, each group will have a unique group name

1.a.ii. Group details can be shared via an e-mail using the registered users e-mail address

2. Opt in and opt out

2.a.i. Users can join a group from using details held within the email, this maybe a code or web link within the e-mail content

2.a.ii. Users can select a group they are a member of and delete their membership

3. Group goals and achievements

3.a.i. Goals are distributed via e-mail and if acceptable the solution accepts a code or link to create a local goal from the details

3.a.ii. Meeting a goal generates an e-mail to the group

Nouns - Classes/Objects

Verbs - Relationships