

Course:	Bachelor of Business (Accounting)	Code:	BACC11
Subject	Accounting Information Systems	Code:	BAC203
Date:	Semester 2, 2016		
Lecturer:	Phillip Wong		

The Puffing Billy Scenario

As a graduate of the Bachelor of Business (Accounting) from Holmesglen you found a profitable niche developing custom databases for small enterprises. Your first client is the Puffing Billy Preservation Society, a tourist oriented not-for-profit dedicated to preserving the historic operations of a narrow gauge railway in the Dandenong Mountains. They have an old membership database that is written in Access 2003 that they would like to be updated. You and a friend have decided to form a new company and build a custom Accounting Information System to suit their needs.

About The Business

Puffing Billy is Australia's foremost operating steam railway, and one of the largest steam and heritage railways in the world. Its history spans a period of 115 years. Remarkably, for more than half that span, it has operated as a volunteer-based not-for-profit body. The railway operates up to seven trains a day, every day except Christmas Day and it carried almost 350,000 patrons in the 2015 financial year, an all-time record.

The Puffing Billy railway was one of four low-cost narrow-gauge 2'6" (762mm) lines constructed in Victoria in the early 1900s to open up remote areas. Situated between Belgrave and Gembrook, it survives as one of the most intact examples of pioneering railway infrastructure in Australia. Its steeply graded banks, trestle bridges, line-side telegraph, signalling and rolling stock are of an era elsewhere supplanted by more modern technology. This railway is serious about its 'era of significance', 1900 to 1930. This guiding philosophy has held it in good stead.

The line to Gembrook opened in 1900, initially to carry produce, livestock and timber to Ferntree Gully, where the freight was transferred to broad gauge trains. However, it quickly became a great favourite of Melburnians, seeking a leisurely way of visiting 'the hills'. The railway closed in 1954 after a major landslide near Menzies Creek, and a succession of Herald Sun specials was organised by the Melbourne daily newspaper to farewell the railway. The success of these specials brought about the formation of the **Puffing Billy Preservation Society (PBPS)**, founded in 1955, which quickly reopened the railway for the public to enjoy. The initial role of the PBPS, was to provide a financial guarantee against loss to the Victorian Railways (VR), which continued to operate the little train between Upper Ferntree Gully and Belgrave. PBPS volunteers acted as "safety officers" and were involved in promotional and fundraising work.

When that section of the line closed in 1958 for conversion to an electrified broad-gauge line, PBPS members became physically involved in construction and track work under VR supervision.

Upon re-opening between Belgrave and Menzies Creek in 1962, volunteer roles extended to station staff (including booking) but locomotive crews and guards continued to be VR staff positions, while the PBPS Executive Committee acted as manager of the railway.



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The Emerald Tourist Railway Board is established

In 1977, the Emerald Tourist Railway Board (ETRB) was created as a statutory corporation under its own act, as a means of taking over the infrastructure previously owned by VR. The masterstroke, so critical to maintaining the support base, was to interlock this Board with the PBPS. The Board is responsible for corporate governance, while the Society provides financial and people-power support as well as a significant proportion of the railway's knowledge base

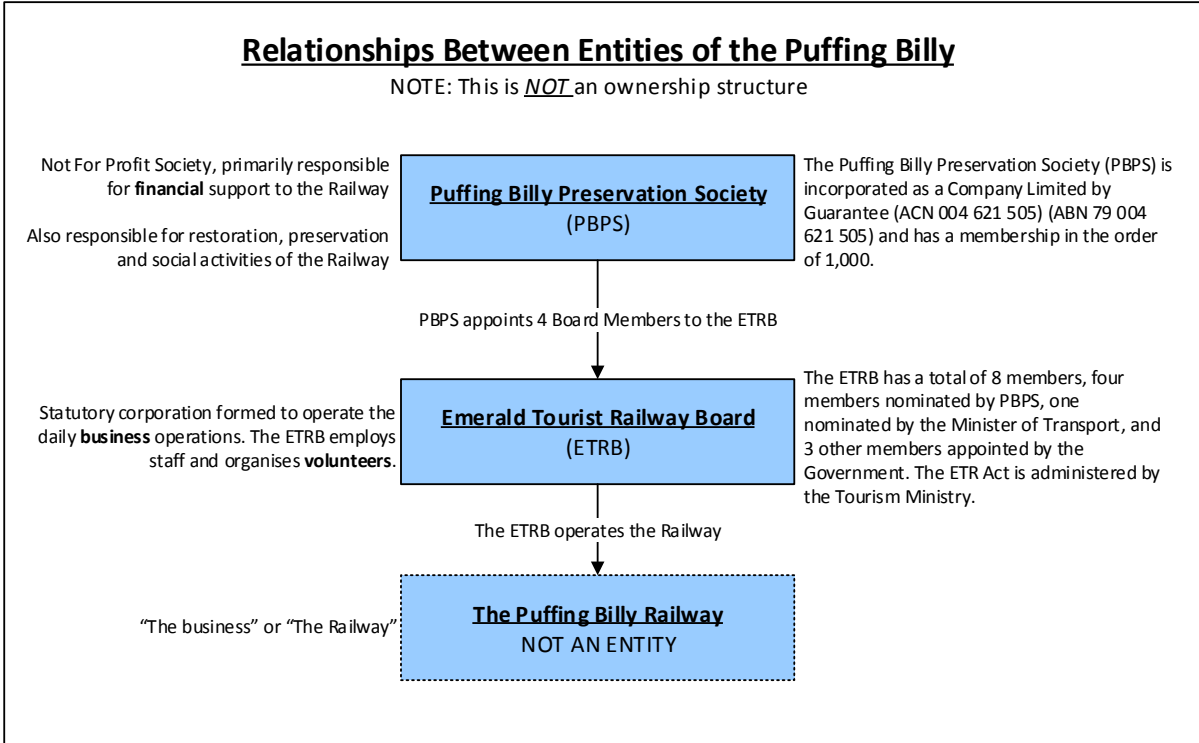


The railway is now a professionally run organisation which shows great credit to the members, volunteers and paid staff that operate it. It is a major tourist attraction and is on the route of many worldwide tourist organisations. Over five million passengers have now been carried since it was opened.

The Corporate Structure

Unlike zoos and the museum, the railway does not receive any ongoing funding from the Victorian State Government. If someone feels that they would like to support the railway, they could do so either financially or they may volunteer their labour. The exact workings of the railway are interdependent and complex, but in general the PBPS raises funds to support the railway financially, while the ETRB organises volunteers and runs the daily railway operations.

The vast majority of the railway is operated with volunteer labour. There are however a few paid staff in key areas, these include the executive, administration, compliance officers, marketing and a few extremely specialised tradespeople servicing the engines.



There are three sets of actors at the railway:

1. Paid staff
2. PBPS members ← This is your task!
3. Volunteers ← under the "Better Impact" database

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The needs and working conditions of each group are sufficiently different that it is sensible to have three separate databases to meet the specific needs of each. In reality there is significant overlap as many volunteers also will also financially support the organisation through membership.



Why membership matters

Being a Society member grants significant discounts on tickets and purchases. More importantly, membership grants a vote at Society meetings, thus giving members a say in how preservation operations should be run. This is in stark contrast to most profit oriented businesses where commonly workers have no say on the board and cannot influence the organisation’s strategic direction.

For example, this telegraph system, seen here behind the Station Master, is the original system, and is still functional almost 100 years since it was installed. Practical issues can cause heated debate. Some members were unhappy with the installation of LED lighting or the use of Phillips head screws, neither of which existed in the 1920s.

A vote is therefore quite valuable as the railway exists because of enthusiasts who genuinely wish to see the railway flourish while preserving the heritage of operations in the 1920s and 30s. Maintaining total accuracy of the database is therefore hugely significant to the

future of the railway.

Membership types

There are different categories of memberships, each with different rights and costs. To be eligible to vote one must be over 18 years of age, and a paid up member. Family memberships include up to two parents/guardians and their children up to 18, but only get one vote per family. Families must therefore specify a “primary card holder” who gets the sole vote. Life members are able to pay their fee once, and will never need to pay for the rest of their life. Honorary life memberships are granted by the executive to members who have made an outstanding contribution to the Society.

Code	Type	2016 Fees	Annual?
E	Senior Life	1,370	N
F	Family (<18)	116	Y
H	Honorary Life	0	N
J	Junior	26	Y
L	Life	2,300	N
M	Member of Family	0	Y
O	Full	78	Y
P	Concession	49	Y
S	Student	49	Y
T	Affiliate	0	Y
U	Family (Student)	116	Y
C	Corporation or other organisation	Neg	Y

Corporate members include any organisations, but they are represented by a nominated natural person. Their fees are negotiable, and they may also cast a vote like any other full member.

The membership sign up process (all year round)

Anyone who wants to join the PBPS must fill out a membership application form, which are available on paper at Puffing Billy stations or via PDF on the website. Prospective members can send their applications in by fax, post a hard copy, or by email to newmember@pbr.org.au. The PBPS Membership clerk checks the email account, and will forward any new applications to the Finance

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Department for the collection of payment. The mail room receives both fax and postal applications and will direct all new member application forms to the Finance Department.

The front page of the application contains the prospective member’s details, while the back page forms the tax invoice and contains only financial information and a box for “official use only”. At this stage any electronic application forms are printed. The Finance Clerk will note the date the application was received in the official use box. They then record on front side of the document the amount paid and method of payment. The front page is then scanned and emailed to newmember@pbr.org.au. The Finance Clerk files the application form in a “pending approval” folder and awaits notification from the PBPS Membership Officer that the application has been approved.

Membership isn’t automatic. The Society’s constitution stipulates that a minimum of 7 executive members must approve the application of any prospective member. When the Membership Clerk received emailed application request, they prepare a New Member Approval Form (see example forms).

This form is sent via email to the 12 Executive Committee members for approval. Each member of the Executive Committee can either approve or reject by simply replying to the email. Once the Membership Clerk has sufficient approvals, they will then advise the Finance Department in an email that the member has been approved. Finance will retrieve application, and record the date and outcome on the official use section.

The PBPS and the ETRB maintain several different bank accounts, but all receipts in this scenario will find their way into the Society’s main chequing accounting.

If the applicant has provided credit card details, Finance will now process the card and issue a receipt. If the applicant had made a direct debit, attached a cheque/money order or paid in cash, finance receipt the day payment is made, which in these circumstances is prior to exec approval. The forms and receipt are paper clipped together, and the Clerk will make a note on the official use section. If the payment is by credit card, the Clerk will redact the credit card data with a heavy black marker. Now that payment has been taken and the membership has been approved, the forms are physically sent to the Membership Clerk by internal mail.



If any memberships that are rejected, the Membership Clerk will email Finance to let them know, and the finance clerk will immediately return any money they have taken. The Membership Clerk would also call the applicant member to let them know of the outcome. So far, no one has ever had their application rejected, so they don’t even have a “rejected applications” folder in which to store the applications.

Membership Clerk must now update the database and create a membership pack. First they check that the receipt matches the form. The database is checked to see if the applicant has previously been a member and if so they are reactivated under their existing member number. If they do not have a previous entry, the Membership Clerk will create a new member and enter their details into the database. If the applicant is a volunteer then the relevant box is ticked.

The clerk will print a welcome letter and a new membership card. The receipt is removed from the form and stapled to the back of the letter. The form’s official use section is updated and then filed

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away chronologically. The letter, receipt, and card along with a copy of the PBPS constitution and any other pamphlets, are all compiled into a welcome package. The package is dropped off at the mailroom, which attaches stamps and posts the package to new member.

If the member is also an existing volunteer, the Better Impact database needs to be updated

The Renewal Process (Annual)

The PBPS Executive Committee will announce the dates for renewal deadline and the AGM. In April an audit is conducted between the Better Impact (the volunteer database) and the membership database to identify any discrepancies in contact details for member-volunteers. If any discrepancies are found, the Membership Clerk will contact the member and correct any details.

Memberships are for the financial year. There are three categories that the membership clerk must deal with: The first is ordinary renewals. The second is life members, who do not receive a bill but will be politely asked for donations. The final group are junior members who turned 18 in the past 12 months, and therefore will be asked to pay full price (or a student concession). A template renewal letter for each category is prepared. The clerk will run a report for each of the categories and mail merge the names into the appropriate letters. These personalised letters are then given to the mailroom who posts them off to members.

Members will send in their renewal forms by either post or email to membership@pbr.org.au. The Mailroom Clerk will direct renewals to the Finance Team, and likewise the Membership Clerk forwards email or fax renewals to Finance.

The Finance Clerk will process the payments and issues a receipt for donations and membership fees. Receipts are stapled to the forms, and the official use section is updated. These are sent onto Memberships Team.

The Membership Clerk checks the receipts and forms match, and updates payment section in database. A separate thank you letter is generated for a donation. A new membership card is produced and attached to a letter advising of current benefits. The card number is noted on the official use section of the form and the receipt removed from the form and stapled to the back of the thank you letter. The form filed away chronologically in a folder labelled 'processed renewals'. Letters, receipts, and cards are enveloped and dropped off at the mail room to be posted out.

Members can renew up to a predetermined date prior to the AGM. This year it will be 31st August 2016. At this time, any member who fails to pay will be considered to be "non-financial" thus not eligible to vote. Any member fails to pay for over 12 months will need to reapply and be reapproved (see the application process).

The Reporting Needs & Review (Annual)

The PBPS Executive Committee will announce the dates for renewal deadline and the AGM. The Membership clerk will call from the database the following four reports

- The Current Voting List: A list of all current members who are eligible to vote.
- The Current Non-Voting list: A list of all current members who are NOT eligible to vote, for example members under 18.
- Inactive list: A list of all previously financial members who failed to renew their membership in the past 12 months.
- A membership summary (total numbers in each category of membership)

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Each of the reports are printed and passed to the Membership Manager who approves the reports by initialling every page. They are then passed on to Executive where they will be used in the AGM to count votes.

The Membership Clerk will print another copy of the Inactive list, and send an email and letter to gently remind them if they would like to be part of the railway.

Your Client

Your client is the Puffing Billy Preservation Society. Jean Clowes is the Vice President and she is your point of contact. All work should be addressed to her.

Glossary of special terms

Better Impact is the name of the database that manages
 The “**Puffing Billy**”, the **Railway**, or simply the **Business** refer to the business organisation run by the ETRB. This is the public face of the organisation, but is not a legal entity in its own right.

The Board means the ETRB

The Society means the PBPS

The Executive means the 12 Members who set the policy and strategic direction of the PBPS (not the ETRB)

Track gauge: In rail transport, track gauge refers to the spacing of the rails on a railway track and is measured between the inner faces of the load-bearing rails. Larger gauges can carry heavier trains whereas narrow gauges are widely used in mountainous regions as construction costs tended to be lower and they provided for tighter turns that were often required.



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Assignment: Puffing Billy

STRUCTURE:

This assignment will be handed in in 2 parts, each worth 30% of final mark

PART 1: DESIGN Requirements:

1	Engagement letter	3	Marks
2	Gantt chart - Design phase	0.5	Marks
3	Gantt chart - Build phase	0.5	Marks
4	A table of business processes	3	Marks
5	Process map (New)	3	Marks
6	Process map (Renewal)	3	Marks
7	Process map (Reporting)	2	Marks
8	Context DFD	0.5	Marks
9	Physical DFD	2	Marks
10	Logical DFD (level 0)	0.5	Marks
11	Logical DFD (level 1)	2	Marks
12	REA diagram [bonus available]	3	Marks
13	DB Tables structure [bonus available]	3	Marks
14	Continuity	2	Marks
15	Professionalism	2	Marks
16	Late Penalty		Penalty

Total marks = 30 marks
Value for 30% of final grade

Submitted on paper to the Faculty assignment drop box.

PART2: BUILD Requirements:

The Database:

1	The correct tables	1	Marks
2	The correct relational set up	2	Marks
3	Basic input forms: (Resources and agents)	3.5	Marks
4	Application forms: (Events)	6	Marks
5	Reports	7.5	Marks
6	Appropriate Navigation	2	Marks

Paper report:

1	Bullet point list of special features included the software	0.5	Marks
2	Known issues and bugs (if any)	0.5	Marks
3	<ul style="list-style-type: none"> List of key Internal Control threats to the organisation Explain how the threat you have identified Propose a solution that will address the threat 	4	Marks
4	A list of additional recommendations such as future features, or changes to operations or market mix.	1	Marks

+ 2 marks for overall company professionalism

Total marks = 30 marks
Value for 30% of final grade

Must be uploaded to Moodle (One Access database file, & one Word document)

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Hints

1. Please treat the "Database" as its own entity, and the Executive as a single entity.
2. Do a separate process map for:
 - a. New membership
 - b. Invoice and existing member
 - c. Reporting
3. DFD: Level 1 logical DFDs should also be split into three components:
 - a. New membership
 - b. Invoice and existing member
 - c. Reporting
4. In the REA, there are THREE events, of which, here is an INVOICE event and a CASH RECIEPT event.
5. In the REA, treat the Membership types as a RESOURCE.
6. Up to 50% bonus marks in the database structure if you can correctly figure out how to address:
 - a. Corporate memberships
 - b. Donations
 - c. A way to deal with membership payments as the fees change over the years